# THE NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

NEW SERIES. **Boston, February, 1870.** VOL. IV.---NO. 2.

R. P. EATON & CO., PUBLISHERS, OFFICE, 34 MERCHANTS' ROW. **MONTHLY.** SIMON BROWN, S. FLETCHER, } EDITORS.


## FEBRUARY.

SHORT always, and sometimes very sharp, is this month of FEBRUARY. The "backbone of winter may be broken," but in efforts to recover its full strength again, it blows, and snows, and freezes, and does so much in this line, that January would stand back as a second-rate month, if it could come along and make little February a visit.

Sudden changes of temperature make unusual vigilance necessary on the part of the farmer. His stock feels them. The milk pail shows them. The young cattle stand with their feet nearer together, and their backs "hunched up" if they are exposed, or in their stalls, if the weather is very cold. All the animals need more food, because more heat is required to keep them warm. Food to them, is like fuel to us, in a cold day. We know how to get up warmth without eating an unusual quantity of food; they do not, and, therefore require more care.

REMOVING MANURE.—Where one is so fortunate as to have a barn cellar, that does not freeze, this month affords an excellent opportunity to take the manure to the fields, where it is to be used in the spring. The labor of loading and unloading it, if hauled out upon a sled, is not lost, as it is so much work done towards mingling and making it fine. This work accomplished, greatly facilitates the preparations for planting and sowing in laying lands to grass, in the spring.

It also saves cutting up the fields, that are obliged to be crossed with carts, after the frost has left the ground. Cart-ruts not only make ugly blotches to look at, but are much in the way of the mowing machine and rakes, whether by horse or hand, and also cut short the crop.

If manure is thrown from lean-to windows into heaps, it is better to take it to the fields in February, even if at some trouble to break it up when frozen.

The work of preparation, and of sowing and planting in the spring, *cannot* be postponed without the loss of nearly a whole year's operations. Whatever, then, can be accomplished in the winter months to aid forward the spring work, ought always to be attended to.

Something may be done this month in getting together materials for fences. On most farms a portion of the fence is of wood. On some, entirely so. Posts may be split out and morticed, and rails sharpened. For "bars" that are frequently to be taken down they should be straight, light and smooth, and made of strong material.

A good rail fence, made of chestnut or red cedar, will last a great many years. We have seen fences made of young cedar and chestnut trees, split once only, that we were in-

formed had been in use *fifty* years, and were still quite good. But in order to withstand the "tooth of time" so long, the bark ought to be removed, and the sticks laid up so firmly that they will not fall, and remain on the ground half the time.

ABOUT PRUNING.—It has long been a practice among farmers to commence pruning apple trees in February, mainly, we suppose, because there is leisure time. There are some reasons why this should not be done. There will not be sufficient action in the tree to harden the surface, where a limb is taken off, before the sap ascends in the spring. When this action does take place, the sap flows out and spreads over the surrounding bark, and by some chemical action which takes place in it, is changed to a poisonous fluid, which greatly injures the tree. It is very unsafe to prune before the middle of June. Soon after the leaves fall in Autumn, and in mid-Summer, are the safe times to do this work.

ROOTS FOR STOCK.—Where roots are stored up for use, it will be well to begin feeding them out in February. A root-slicer is a most convenient article. It will slice a bushel in two minutes, when turned briskly by a man, and leaves the pieces in thin slices as long as one's fingers, each slice being cracked in many places. In this condition, all the domestic animals can eat them without danger of getting choked.

TOOLS.—No delay is safe now, in seeing that plows and all other farm implements are in order to be used.

FUN.—Short and boisterous as the month is, there is usually considerable fun in it. The 14th is *Valentine's Day*, when there is some latitude likely to be given both to tongue and pen. In London, 200,000 letters, beyond the usual daily average, pass through the Post Office on St. Valentine's Day. "Two hundred thousand two-pences," said a gentleman, and was going to cast it into shillings and pounds. "Why, papa," said his daughter, "that's just the number of young folks there must be in love with each other—that's the way to reckon!"

The privilege allowed to tongue and pen on this day ought to be used with much discretion. They sometimes awaken emotions, and excite hopes, that can never be realized. A general excitement prevails among young people, all breathing the spirit of the poet,—

"Outstrip the winds my courier dove!
On pinions fleet and free,
And bear this letter to my love
Who's far away from me."

The old English books are full of the customs practiced on St. Valentine's Day. Sonnets and larger poems have been written without number, and jovial games, stories and witticisms are plentifully recorded. It was a general holiday, and served to drive off grim care, and refresh both body and mind for future labor.

"I'll be yours, if you'll be mine,—
I am your pleasing Valentine,"

was upon a thousand tongues, and in ten thousand billets-doux.

## THE DAIRY IN MICHIGAN.

We think there is sound sense in the following suggestions, by X. A. Willard, in the *Rural New Yorker*, to farmers who are now changing from the sheep business to that of the dairy. During the war we frequently heard the remark that prices for sheep and wool could never again be as low as formerly. But they have been low for two or three years. What assurance have we that the products of the dairy are safe from a similar depreciation?

F. M. Holloway, Hillsdale, Michigan, writes to the *Germantown Telegraph* that the falling off of the wool clip of the State last year was about 300,000,000 pounds, and he thinks that next year will show a like result.

He says every pound of wool grown in Michigan costs fifty cents, as farmers have learned by bitter experience, and they will no longer hang their hopes upon a delusive tariff for relief—that four pounds of butter or six pounds of cheese can be made with less expense than a pound of wool can be grown, and that the dairy interest is therefore taking its place. The pork interest is also spoken of as unprofitable, as Michigan farmers cannot compete with the corn regions South and West.

We are rather surprised to hear this statement from Michigan, and we hope the dairy will not disappoint Michigan farmers; still, success in the latter business depends upon skilful management and experience; and it is not well for farmers to be constantly changing from one kind of farming to another, simply because prices happen to be low one year and some other business just at that time appears more profitable. It always takes time and a good deal of experience to learn a business thoroughly, and when one becomes proficient in a certain branch he should have good solid reasons for abandoning it for that with which he is not familiar.

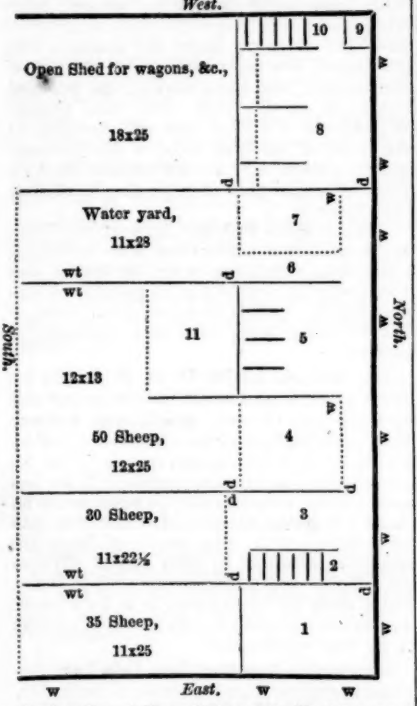
We do not wish to discourage any one from entering upon the dairy business, but rather to give caution that too high hopes should not be entertained, and that an inexperienced person will not be likely to realize a fortune from the dairy the first or the second year of his trial in it.

*For the New England Farmer.*

## A CONVENIENT FARMER'S BARN.

In compliance with your request that some of us, practical farmers, who have barns that we think are about right, would furnish you plans of their arrangement and descriptions of their construction, we send you the following sketch of one that we have built during the past season, and which we are now using with the most perfect satisfaction. The barn is 75 feet long and 40 feet wide. The following is the plan of

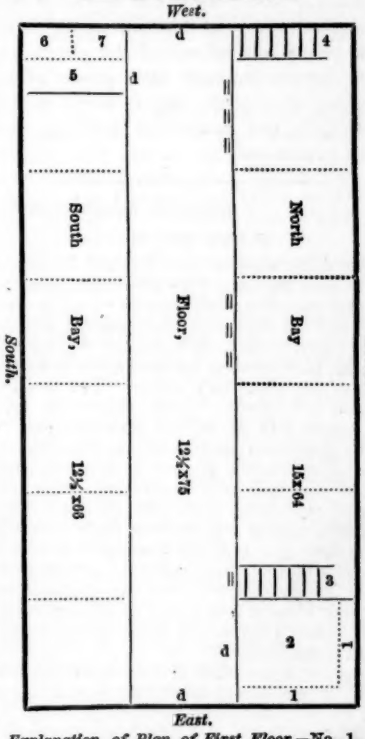
THE BASEMENT.




*Explanation of Plan of Basement.*—No. 1 is a room for poultry, 11x16 feet, fitted up with roosts, nests, &c.; No. 2, stair way 3 feet wide; No. 3, feeding place, 11x17½ feet, including stairs; No. 4, pen for calves and for manure thrown from the cow stable; No. 5 is the cow stable, 12x15 feet; No. 6 passage way, 3½ feet wide; No. 7, pen for hogs in front and for the manure from horse stable, 7½x11½; No. 8, horse stalls—the horse crib is 2 feet wide at bottom, 2½ at top, 2 deep and 1 foot from floor, made of maple plank; No. 9, harness room; No. 10, stairs, 3 feet wide; No. 11, hospital, or spare pen for colt, sheep or other animal, 12x12 feet. The place for doors is shown by d; wt indicates location of water troughs; w, windows.

Here all our stock are kept. It is all above ground and is eight feet high. The first two feet are stone wall, on which rests the frame, except under the big doors, where the wall extends to the floor. The posts of the barn are 20 feet in length, extending 6 feet into the basement, and 14 feet above the first floor. Excepting the open space for wagons, &c., it is all enclosed, and so warm that water in the troughs does not freeze over in the coldest weather. Ample means are provided for ventilation. The partitions in the basement are made by nailing cleats on the inside of the posts, which are 10 inches square, and slipping boards between them. The south side, at dotted line, is boarded down to foot of the braces outside, and inside of braces doors with large glass windows are hung to the timbers above, so as to turn up and fasten over head. There are one of these at each bent where the stock is kept, and one for the purpose of ventilation. Below these are smaller doors for the passage of sheep, which turn up at bottom. In summer time, the sheep doors are set one side, and the upper part or large doors are fastened up and the whole basement becomes an open shed. The manure is thrown from the horse stable through a window into the pig pen, and from the cow stable in the same way into the calf pen, and the treading of these animals keeps it from heating.

PLAN OF THE UPPER FLOOR.




*Explanation of Plan of First Floor.*—No. 1, the bins, 2 feet wide at bottom and 2½ at top, which are a part of the corn-room, No. 2, 11x16 feet, including the bins; No. 3, stairs, 3x8 feet; No. 4, stair-way; No. 5, oat-room, 9x12½ feet, including Nos. 6 and 7, which are bins. The parallels, =, show the feeding places to the sheep, cow, and horse departments below.

The first floor, as will be seen by the plan, consists of a drive way or floor 12½x75, two bays, one 12½x66, and the other 15x64 feet, with corn and oat rooms, &c. The barn is situated on level land, but with an inclined bankment of 30 feet in length at each end we find no difficulty in surmounting the rise of six feet necessary to enter the floor. The large door at the east is hung on rollers on the outside of the barn, while that at the other end is hung inside, and slips in behind the stairs at the right. The dotted lines across the bays indicate the position of the beams 12 feet from the floor, and not partitions. There are only two bays. The barn is covered by a "two-thirds" roof, ribbed and shingled with sawed hemlock 26 inches long, the whole supported by purline plates. The hay for the sheep is thrown down the stairs into the "feeding place," and is distributed from that place to the feeding boxes in the different pens. P. & O. L. FISHER.

*Westminster, Vt., Jan.* 1, 1870.

REMARKS.—We regret that we cannot give a perspective view of this barn, as we are assured by the wife of one of the owners, to whom we are indebted for a portion of the foregoing description, that it is not only a comfortable and convenient building, but that it "looks well."

*For the New England Farmer.*

## FARM HELP.

In reading what others write and in listening to what they say, I am often reminded of the fact that we are all liable to "jump at conclusions." I think that Mr. Jameson did so in his remarks about foreign help, and I thank "D. M. H." for what I regard as his just criticism of Mr. Jameson's article. But as Mr. J. gave us his name, I should have been better pleased if D. M. H. had done the same.

City gentlemen who retire to the country after having made a fortune in business conducted on principles of punctuality, order and system, experience much difficulty in securing such farm help as will conduct their farming in the same neat and orderly manner in which their city business was managed, and few men either foreign or native born, can be found to suit their ideas of good help, or efficient managers. And I agree with D. M. H.'s remarks upon this subject.

I cannot agree with Mr. Jameson, though D. M. H. appears to do so, that none of those men who are competent to manage farms in England, profitably, that rent for ten to twenty dollars per acre, are seeking employment in this country. I have personal knowledge of men who paid similar rents for hired land in England, and made money there, who sold out and came to this country, believing they could do better and live easier here. But I think most of them have been disappointed in these anticipations. They find a great difference in the climate, soil, customs and productions of the two countries. In England labor is cheaper than here; and many farmers there do little more than superintend their business, while hired servants do nearly all the work. In this country labor is so scarce that the proprietor or manager must take hold of the hardest work, and even then is not able to carry out his ideas of farming.

Hence, some of the farmers' sons in England, from being brought up without much work, and not unfrequently spending much of their time in riding about the country, like gentlemen, are not as well skilled as many of the servants, who know more of the practical operations of the farm. But those foreign boys who have worked upon and shared in all the labors of the farm, with, as Mr. Jameson well expresses it, "a determination to be a farmer," make valuable help and progressive, neat farmers.

I cannot agree with Mr. Jameson that bleak rocks and desert sands, even with intelligent labor, make rich farms or wealthy States, and I allude to the remark for the purpose of expressing the opinion that too much strength and too many lives have been expended on such soil.

Mr. Jameson advises D. M. H. to hire his own son, or, if he has none, to encourage and hire the son of some neighboring farmer. While this advice may have been prompted by a right spirit, I have known it to be acted on in such a way as to cause trouble. If he has a son that he wishes to keep at home would he thank a neighbor who should entice him into his employment? The minds of boys are sometimes unsettled by such means. Wages are offered and inducements held out that tempt them to leave home, or at least create uneasiness. These remarks are based on facts of my own observation.

In regard to boarding farm help I am disposed to dissent from the views of both Mr. Jameson and D. M. H., or at least to ask them if they have thoroughly considered the subject, and to advise all who propose to adopt the plan suggested to "look before they leap."

In leaving the old country I did hope that I had left that system in England, where it originated. In my mind it is associated with some of the worst features of the old world aristocracy. I am afraid that the introduction of this plan, as well as the introduction of English sparrows will prove misfortunes to American farmers. In England there are two tables in every farm-house, and in some large establishments the men are boarded in a house upon the farm; a laborer and his wife being chosen to take charge of the same. In some instances the gentleman pays so much a week per man, and said bailiff finds all. In other instances

the gentleman will pay the family so much a week for cooking, the master finding everything. This is done that the master and mistress may have more leisure, but while enjoying this leisure their property is going to waste and they themselves to ruin. Of this, gentlemen, I have been a personal witness. Would it not be much better for every farmer's wife to superintend her own domestic affairs, providing she does not work herself? Is it best to bring up our daughters so daintily that they they will become so nervous that they swoon at the sight of the working-men in the kitchen?

Where a farmer employs but one man this plan may answer, but with from five to twenty I think he would find it more costly and inconvenient than to board them in his house. Those who have money in abundance may care little for economy, but with farmers like myself there is little to waste.

Farmers, like others, desire to see their wives happy, and I venture to say that thousands are more happy in the kitchen than in the parlor. Indoors as well as out, all needed help should be provided, so that the wife should have time to be sufficiently familiar with the affairs of the farm to manage them in the husband's absence. I am aware that study and inquiry are now necessary to keep up with the improvements of the day, but it would be good policy for us to keep in remembrance the old rhyme—

Man to the plough,
Wife to the sew,
Boy to the flail,
Girl to the pail,
And your rents will be netted;

But man tally-ho,
Miss at piano,
Boy Greek and Latin,
Wife silk and satin,
And you'll soon be gazetted.

I hope Mr. Jameson will read this with the same good feeling in which it is written, as I wish to be friendly with those whose opinions I may not fully endorse. E. HEBB.

*Jeffersonville, Vt., Jan.*, 1870.

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*For the New England Farmer.*

## "STICK TO THE FARM."

These four words have made a *text* for a great amount of agricultural writing and speaking. It comes most often from men who are not themselves on farms. Men who *buy* all their farm products, men who make agricultural addresses at county fairs, and from men who make agricultural papers for farmers' reading.

Now, to a hard working farmer, or farmer's wife, who is, by the strictest economy, just making a living, this text is not very musical, coming as it often does from an editor who is getting a liberal salary, or from a lecturer who is making more money in one day than the farmers net income for a year. I hardly ever see those words at the head of an article without feeling a little cross.

The writers seem to wish to *encourage* the farmer; to convince him that he *is* really better off on the farm than he could be any where else.

Now it seems to me, to be the most natural thing in the world for men who have their food to buy, to desire to see plenty of farmers to raise it. I, as a farmer, certainly like to see people stick to *other* business,—the more the better.

I find my best place to sell is where there are *no* farmers. Do the mechanic, the tradesman and the man of letters, find it the cheapest place to buy where the people are *all* farmers? Why should not they say, "stick to the farm," and try to convince the farmers' sons that it is the best place for them also.

And why should not I say to you who are not farmers, stick to your trade, or profession, or store. Do not raise anything to eat. You are doing better as you are. You can buy your produce a great deal cheaper than you can raise it. And your sons had better stick to the business you have taught them to do. They will succeed much better than if they try farming. Advice which is probably just as good for them as is yours for my son.

You advise us to stick to the farm, because you say we are so independent, or because it is so healthy, or that rural life is so pleasant, or because we are so free from care, and anxiety, and because all but three in a hundred of business men fail. You like to cite cases where farmers have begun in a small way, and have succeeded in gaining what you call, *for them*, a competence.

I know a man who is worth perhaps twenty or thirty thousand dollars, who boasts that he has made more money at farming than any man of his acquaintance. Now the fact is he is entitled to be called a farmer about as much as are thousands of business men who keep a horse to ride to their store, and raise hay enough on their house lot to keep him, with the addition of grain bought.

This *farmer* had a farm, a grist mill, and a saw mill *almost* fall to him, from his uncle. He paid something for them, but nothing near what they were worth, or what any one else would have had to pay. Then, in the same way he came in possession of more standing lumber than his mill could saw out as fast as it grew. He is now an old man. His wife has worked very hard a great many years. They have hired enough help every winter to cut and haul all the logs the mill would saw, and have boarded all the help; have kept teams enough to do the carting, and raised hay enough to keep the teams, and farm produce enough to board the help. He has bought oxen by the score in the fall, kept them on hay that grew on the meadow which the mill pond covered in the winter, and sold them in the spring to the neighboring farmers, at an advance,

after hauling logs all winter; then put his manure on his upland where he would raise potatoes enough for the family and corn enough with what he took as toll at the grist mill to fat his hogs, which were all consumed in the family. Most of his good hay he sold. And now his farm is not nearly as good as it was when he took it. He digs no stones, makes no wall and drains no land. But he passes for a successful farmer.

There can be no harm in advising *him* to stick to the farm.

I know another farmer, who three years ago left his place as foreman in a large factory, where he said he was getting all the wages he was willing to ask. He had saved enough in twenty years to buy a five thousand dollar farm. He put it all into a farm, and run in debt for the stock and tools. There was lumber enough on the place to build a new barn, which the place very much needed, but rather than be in debt he sold the lumber standing to pay for the stock and tools and then hired a man to run the farm while he went back to the shop to stay long enough to earn a new barn. He has tried several different men, but all of them had to draw on his wages to keep the farm running. And now he has let it out for a term of years, hoping some time to have earned enough in the shop so that he can afford to live on his farm! Would you advise him to stick to the farm?

I know another farmer of fifty years of age, who, till last spring, had been in a mechanic shop thirty years, was receiving good wages as engineer, house rent gratis, with a large family of girls all engaged in the shop at good pay. Last spring he and his son-in-law bought a large farm for seven thousand dollars, paid two thousand down and mortgaged for the balance. He runs a milk cart, gets up earlier in the morning than he ever did when *confined* to the shop.

He is disappointed in the capacity of the farm. Has to buy a great deal of feed for the cows. His fruit all blew off in the gale. His potatoes were spoiled by the drought, and the family have consumed all the garden produced. The taxes are high and the interest money is on the opposite page from what it was before this year. He is feeling decidedly *blue*. He and his family never worked so hard before or received so little for it. Shall he stick to the farm?

If I were buying my farm produce I might say "stick." But while I am raising food to sell, I do not expect to spend a great deal of breath in trying to convince people who do not like the business, or those who do not succeed in it, to stick to the farm.

A. W. Cheever.

*Sheldonville, Mass., Dec.* 27, 1869.

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Remarks.—We are so well pleased with the manner in which our esteemed correspondent has presented his views, and our columns are so crowded just now, that we defer for the present any remarks of our own upon the subject of this communication.

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*For the New England Farmer.*

## THE GARDEN IN FEBRUARY.

"Who slacketh his tillage a carter to be,
For groat got abroad, at home lose shall three,
And so by his doing, he brings out of heart
Both land for the corn and horse for the cart."

Thus wrote the Poet-farmer Tusser. Can the reader see any point in it, as applied to the farmer's garden? I merely throw out the suggestion, and leave the inferences to be drawn and applied to suit each individual case.

In our climate little else can be done in the garden in February than to get ready for spring work; although I have known exceptional seasons when ploughing and planting of early crops was done in this part of Connecticut as early as the latter part of the month, and all prospered and perfected good crops.

In all our management and plans of the garden, our aim should be at the highest degree of excellence. To excel is one of the chief sources of pleasure with all enterprising, go-a-head individuals in any undertaking. There are many things in the care of a garden from which an inquiring mind may extract pleasure as well as profit. In watching the beautiful processes of nature, there are many interesting lessons. As a general thing we are too much of a matter-of-fact people; we mingle too little pleasure with our business. In all our gardening operations we should have our eyes open to the charms and attractions, of vegetable growth and perfection. Thus labor would become more profitable and successful,—for where there is a love and interest in any business success is sure to follow.

Cold Frames.—Look at directions given last month and follow them up—plenty of air mild days, and protection from changes, comprise the principal care.

Fences.—A good garden fence, kept in repair at all times, will save a deal of trouble from the invasion of stray animals. Gates should have fastenings, and be capable of swinging without dragging on the ground. A nail in that loose board or picket will prevent trouble.

Grape Vines.—If these were not pruned in the fall, embrace the first mild spell when they are not frozen, and prune them. Rampant growers will do better not to cut them very close; they will produce more fruit and ripen it better than if pruned to one or two eyes. Vines should be pruned, according to their growth and habit.

Hot Beds.—For general family purposes at the North, hot beds will not need to be started till next month or later. Frames and sash should be got in readiness, by doing all

painting, glazing and repairing that is needed. Let the manure and heating material be accumulating against time of need.

HOUSE PLANTS.—These will need attention in keeping the foliage free of dust, the bane, often, of plants kept in the living room. Wipe the leaves and stems of all smooth, firm leaved plants with a wet sponge or cloth. Give all plants a showering, from a watering pot with a fine rose sprinkler, as often as once a week, by placing them in a sink or large tub, and turn them on their side so as to wet the underside of the leaves as well as the upper. If the green fly, or aphis, trouble, give them tobacco smoke, confined under a tub, a funnel of paper, or box. Treat red spiders to frequent showering at evening, keep the atmosphere damp and they will soon leave.

PRUNING OF CURRANTS AND GOOSEBERRIES, if neglected in the fall, may be done any time when they are not frozen and the weather is mild. Cut with an eye to a well balanced bush, recollecting that fruit is borne, on the currant, on old wood. Of currants there are none preferable, for general culture, to the Red Dutch, White Dutch and La Versailles. Houghton's Seedling Gooseberry, and other American seedlings, are the most healthy. The larger imported varieties seldom escape mildew in our culture.

SEED DRILL.—No garden of any considerable size ought to be without some machine for sowing seeds. The machine drops the seed more evenly than it is done by hand, and saves the back from many an ache. These machines are now so commonly manufactured and the price so reasonable that there is not as good an excuse now as formerly for being without them. Some of them are made for sowing any seed, from that of the size of the turnip to peas, beans, &c.

TOOLS.—Have you all that are needed for the garden, and are they in good repair? If new ones are to be procured make a memorandum and look among the implement dealers as you visit the city, see what is new, and procure early. Make all needed repairs on old ones; give the wood work a coat of paint, or even boiled linseed oil clear is better than nothing.

Do not let another spring pass without setting out some flowering or ornamental shrub in that vacant place in the yard, to shut out that obnoxious view of premises over which you have no control. An ornamental tree set in the street in front will make your place look more attractive; as it now is, it looks barren and lonely without a tree or shrub to look out upon, or to meet the eye as we approach the place.

W. H. WHITE.

*South Windsor, Conn.*, 1870.

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—The Melbourne (Australia) Meat Preserving Company are now slaughtering 8000 sheep a week for exportation to England.

## AGRICULTURAL ITEMS.

—Samuel E. Bacon, Strafford, Vt., slaughtered a hog December 18, fourteen months and a few days old, which measured from nose to end of tail eight feet, and dressed 734 pounds, giving a daily increase of nearly 1¾ pounds.

The New York Farmers' Club is informed that Frederick Selsor, of Ohio, has a thoroughbred bull calf one year old the 23d day of last April, which on the 23d day of November last weighed 1,710 pounds.

—At the Department of Agriculture of the University of Wisconsin, the course of instruction pertaining to agriculture is so arranged that the instruction in the class room can be completed in a single year by students already well acquainted with the physical sciences.

—A farmer in Putnam County, Ind., has kept a pair of black snakes in his barn for several years, and all kinds of vermin have since entirely disappeared. His cribs and bins are no more disturbed by rats and mice. The snakes are not the racers or the spotted variety, but a short, thick species, of a jet black color, and they are, he says, better protection than a dozen cats, and are entirely harmless toward chickens and domestic animals.

—At the East Orwell, Vt., Cheese Factory the milk from an average of 300 cows was daily received. Number of pounds of milk received, 857,674. Number of pounds of cheese produced, 90,607, showing an average of 9 46-100 pounds of milk for one pound of cheese. Cash receipts for sale of cheese $14,905.33, an average of gross receipts per cow, $49 68-100. There will be funds to pay a fair per cent. on the capital stock of the company.

—The Hampden Co., Mass., East Agricultural Society have chosen the following officers for the year to come: President, Dr. William Holbrook, of Palmer. Directors, Samuel Haines and David Knox, of Palmer; J. S. Blair, of Brimfield; A. J. Northrup, of Monson; Silas Billings, of Ludlow; and J. B. Foster, E. N. Fay, and O. M. Graves, of Monson. Secretary and Treasurer, O. P. Allen, of Palmer. Delegate to the State Board of Agriculture, Hiram Converse, of Palmer.

—A farmers' club has been formed in Newport, Me. The Secretary, Sewall Pratt, makes the following report in the *Maine Farmer* of wheat raised the past season by members of the club. John Parkman raised one hundred and ten bushels from four and one-half acres; Samuel Marsh forty-four bushels from one acre and two bushels of sowing; S. S. Wedgewood from two bushels of sowing and one acre of ground, thirty-four bushels. I raised twenty-four bushels from one and three-fourths bushels sowing, from one acre of ground. Mr. Henry Marsh, who is a flourishing farmer, harvested from two bushels and twenty quarts of sowing, eighty-three bushels of wheat from two acres of ground.

## WINTER CARE OF POULTRY.

MANY persons complain that they get no eggs from *their* fowls in the winter, seem disappointed, and "wonder what the matter is." This is true in a large number of cases, even among farmers who look to profits of the poultry as an item of considerable account. Every year, soon after two or three weeks of cold weather have transpired, eggs are scarce, and sell readily at twice the price they brought in September and October. Precisely the same fowls that laid once liberally, have ceased entirely, or their product of eggs is exceedingly moderate. Why is this? the good housewife frequently asks, when the egg-basket in the store-room is empty, and none can be purchased or borrowed in the neighborhood. As a consolation to the anxious housekeeper, whose plans are thrown completely out of joint, the good man of the house informs her that "hens cannot always lay,—they must have time to rest, and by-and-by they will commence again." All this may be true, but he has not given the reason why the hens do not lay, even if it is cold weather.

When fowls have their liberty, they are not contented with remaining quietly in a limited space. They love to roam considerably; quite as far as they deem it safe so long as dogs, foxes and hawks are about. They are not idlers in their rambles, but assiduously search for the materials which not only nourish the body, but which go to build up the egg. In worms, grasshoppers, &c., they find the animal matter they need, which goes first to sustain the body, and in part, perhaps, to make the egg. Then they need gravel, old bones, lime in oyster shells, old mortar, or something else, and a little sulphur, all of which they find in their rambles. They are an inquisitive, prying people, often getting where they are not wanted, but rarely where they do not find something agreeable to themselves.

When at liberty, also, they suit themselves as to heat and cold. If the weather is clear and cool, they cluster together under the lee side of the building, fence, or bushes, and bathe themselves in the sun's rays. Or, if the weather is hot, they seek the shade, where they droop their wings, so that their heated bodies are cooled as fresh breezes go by them.

All this is what we should do for them—or give them the opportunity to do for themselves in cold weather, while in a state of confinement.

In the first place, *warmth* is indispensable to success. Without this, all the care that can be used in feeding, and in supplying a *variety* of food will be in vain. They *must* have *warmth*. When this is supplied, they must have something of the *variety* of food which they find when at large. A third requisite is, plenty of room in their house, and the room, or rooms, roosts and laying boxes, kept clean.

It is found best to keep constantly before them, corn, barley, oats, a box of sand, pounded oyster or clam shells, old mortar, or something that they get of that nature when at large, which they require. A dozen hens will eat all the bones that come from the kitchen of a family of eight or ten persons during the year. Dry them in the stove oven; place a firm stone in the hen-house, and pound the bones into fine pieces upon it. They will be sought with more eagerness than corn.

Each morning, in cold weather, give them a mash of boiled potatoes and meal, mixed up with some fatty matter.

Part of a cake of pressed pork or beef scraps from the butcher, lying before them, will furnish what animal food they need, instead of the worms and grasshoppers which make a portion of their summer diet.

Then they need vegetable matter, such as turnips, beets or mangolds, to take the place of grass which they eat in summer. Fifteen to twenty hens would gladly eat two or three dozen cabbages during a winter if they could get them.

Another care must be observed, that they are free from vermin. No fowls will lay well, and continue healthy, if they are continually preyed upon by these parasites.

Preventive and remedy are both easy. Scrupulous cleanliness is the first. But, if these are not entirely effective, and vermin exist, take the fowl from the roost in the evening,

and rub a little melted lard, or sweet oil of any kind, about the top of the head, under the wings, and touch it upon the body in several places. Do this once a month. The oil will spread over the surface, get upon the vermin, their breathing holes will be stopped, and they will die.

An observance of these simple rules will keep fowls healthy, and enable them to produce about 160 eggs, for each hen, in the course of the year.

When we say that fowls must be kept *warm*, we do not expect that all persons will find it convenient to have a room where water would not freeze,—but that it should be so tight that wind will not enter, and so supplied with glass as to admit the sun's rays during a large portion of the day. A room lathed and plastered would soon pay the cost in an increased product of eggs.

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ARTIFICIAL MANURES.—A gentleman residing some sixty miles from Paris, has offered to place 250 acres of his farm at the disposal of manufacturers of portable manures. The soil is above the average quality, and in good condition. He will only ask them to supply the stuff, he will sow and cultivate, pay for a faithful registration of the experiments, and will divide one-half the profits with the manufacturer. Up to the present time he pauses for a reply. This is a fair proposition. We should be glad to see it tried.

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*For the New England Farmer.*

## FOOT-ROT IN SHEEP.

EDITORS NEW ENGLAND FARMER:—*Gentlemen*,—In compliance with your request I herewith send you a few lines upon the subject named.

As every man who has seen this disease has his own opinion about its contagious character, and also understands well its mode of working, perhaps it will not be best here to say anything in regard to either of these two points—excepting to state that I think there is no evidence to lead us to infer that the disease is self-producing, or that it is communicated in any other way than by contact.

When once started, it works its mischief by the process of ulceration. The particles of living tissue within the hard shell of the foot are gradually broken down, until the attachment between the outer and inner portions is destroyed, and then the shell, in part, or as a whole, drops off.

"How shall I cure it?" is the question which every man asks, whose flock this calamity overtakes. The anatomy of the sheep's foot, and the pathology of the disease, are matters which may be talked over when we have no more urgent business on hand. But, just now, help me rid myself of this troublesome pest.

Well, then, let every one be convinced of the fact, that this disease is only an ulcerating sore, and needs for its removal—or cure—just the same rational local treatment, that an intelligent physician would prescribe for a similar sore upon your finger, caused by the contact of poisonous matter in some post-mortem examination. A clean poultice, or lint moistened with warm water, would be about all that would be demanded for the finger. But as we cannot carry the same delicacy into the treatment of sheep's feet, let our treatment be regulated on the same principle—that is, *cleanliness*, as perfect and entire as can possibly be obtained, and as lasting as the case demands. Here lies the whole secret in "curing" this annoying disease, which so generally affects the flocks of New England. My conclusion is not drawn from theory alone; but from actual practice, no less.

From a number of the worst cases I have ever seen in my own flock, I selected seven for experiment—none could be found worse than these seven.

After every particle of the shell of the ailing feet, that could be flayed up easily from the ulcerating tissue beneath, had been cut away with a sharp knife, the feet were carefully and thoroughly washed in cold water, and the sheep put into a dry pen, well littered with clean straw. Now for the result. I examined those feet every day. Where manure adhered, so as to prevent needed observation, it was washed off. No knife was used. Not a drop of matter was ever seen upon one of them. The loose, ragged tissues contracted and became dry externally, new shell commenced to form, and as soon as time enough had passed, every foot was clad in as clean and sound a hoof as ever a sheep stood upon.

This experiment taught me how to "cure" foot-rot; and if a man has but a small flock, or a small number affected, and can give the requisite time to it, nothing more is needed. I have tried this plan in other instances, and always with the same result.

Still some aid may be obtained in treating large numbers, from vitriol. I think this all that ever need be applied, and the action of this agent is purely mechanical. It contracts or puckers up the tissues that have been eaten into shreds by ulceration, and so doubtless squeezes out the minute particles of poisonous virus from the deep cavities in the diseased part, and bringing the live fibres into closer contact, the healing process is assisted.

As a wet sponge if thoroughly squeezed, will dry more quickly than if laid in the sun while filled with water, and as if kept compressed it will not as readily absorb more moisture, so vitriol, by its astringent property,

compresses the spongy tissues of the diseased foot, and holds it in that condition till the parts can become glued together by the material supplied from the blood of the animal. This compression aids the healing process, and at the same time renders any fresh matter that may come in contact with the foot much less liable to be absorbed.

These are all the remedies that need ever be used.

"But," says many a man, "I have used vitriol many times, and it never cured my sheep." Very true. Many men have mended fences every year, all their lives, and never had one suitable to stop a calf six months old; still good fences are very useful appliances on a farm.

The truth is, the work is not properly done. Most men pare a diseased foot as they would their finger nails, cutting off only a rim of the outer border; whereas every particle that can be detached from the soft parts beneath should be cut away,—as if you would cut off all the nail from the finger, deep down into the live flesh, till it should bleed all round the border. Or, again, such work is done as if you were to cut off only the tips of the shuck of an ear of corn, when you need to strip off every husk down to the but, and lay every kernel bare.

This preparatory work is indispensable. If it is not done all subsequent labor is wholly lost. Don't be afraid of a little blood. It would be well to wash all severe cases before applying the vitriol as directed in the note below.*

As soon as this disease makes its appearance in a flock every sheep should be handled, and each foot carefully examined. Every case that shows no more than a *suspicion*—indicated by a little heat or redness, or a slight abrasion of the skin between the claws,—should be separated from the general flock and kept in a different enclosure till made well. *Vitriol should be applied to every foot in the flock.*

The diseased sheep should be treated every third day, till no trace of the disease is seen. If the work is done faithfully, two weeks will be sufficient to make all lame sheep whole again.

To make sure of the work of the whole flock, the sound portion should be treated by having their feet carefully cleaned and the vitriol applied once in two weeks, for three or four times.

If the time is summer, put the affected part into a dry pasture, if possible; if it is winter, put such in a dry pen and guard against moisture. With such measures carried out, no man need be afflicted for many weeks with this annoying grievance.

This treatment must be followed up with the most persistent energy. It is comparatively easy to cure ninety-nine sheep in a hundred; but we are quite apt to let the last one go till she has reseeded the whole flock. It is old Jackson's "Eternal Vigilance" which can alone secure for us freedom from foot-rot. The sooner flock masters throw out of their minds all ideas about a remedy that will "cure" this malady without the exercise of such vigilance as is pointed out above, the sooner will their flock be free from the mischievous ailment.

Vitriol does not "cure" the injured part; it only *aids* us in our work of removing and keeping away the causes of the disease, till the waste of the tissues, caused by ulceration, may be repaired by nature's own process—the new material furnished to the part from the blood of the animal. HENRY BOYNTON.

*Woodstock, Vt., Dec.*, 1869.

*Heat a pint or more of strong vinegar to near the boiling point, and then, while hot, put in as much vitriol as will dissolve while the mass is stirred. Turn off into glass bottles to keep. It is best applied with a small brush, such as painters use to "draw" window sashes.

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*For the New England Farmer.*

## HOG KILLING AT THE WEST.

The return of this season—which might as appropriately, if not as poetically, be called the "time of the squealing of hogs," as is the spring the "time of the singing of birds"—reminds me of the "times" we used to have in Illinois when that was out west.

There is something about prairie life, with its wealth of elbow-room, which enlarges the hearts and liberalizes the minds of the settlers and tends to break up the narrowness of idea which the Eastern emigrant brings with him from a land where farmers, as a class, are too much addicted to a little one-horse style of thought and feeling, andwhose sympathies too seldom extend beyond the family, or the limits of the farm.

This generous, social characteristic of Westerners, is carried into every department of their business; the whole neighborhood follows the reaper and thresher. A man's whole crop of wheat goes to market in one day, with perhaps a procession of wagons as long as an "official" funeral; and then come the corn shucking and other "bees" in the fall, closing up with the "hog killing," which brings me back to my subject.

We'll suppose Farmer Brown has fifty hogs ready for market. At the proper time he goes to town and engages his "crop of pork." This done he proceeds to load his wagon with the various luxuries of the season and returns home. Word is circulated that Farmer B. is to have a "killing." Matrons and misses gather in to help Mrs. B. make the necessary culinary preparation. On the fatal morning all the able-bodied men in the vicinity, fully armed and equipped, tender their service to Mr. B.

Down by the creek, where wood and water is handy, a huge fire soon sets the water a bubbling in the row of great black kettles. Pop goes a rifle! The battle has commenced,

and a porker bites the dust up in the pen. The knife is applied, and a horse draws the bleeding victim to the scalding tubs. Many hands make quick work, and the boy in the fence corner with his rifle, the man with his knife and the boy with the horse, are kept pretty busy. How the bristles fly! What a ghastly array fifty porkers present suspended on the poles! Must I tell it? Just beyond the butchers, muffled in hoods and shawls, with their feet on the reeking paunches to keep them from freezing, with bared arms stand a bevy of fair damsels collecting the fat from the intestines.

The last hog being hung up for the wintry blast to cool, all hands clean up and "go in" to the Thanksgiving-like dinner, which Mrs. Brown and her aids have prepared. While the viands are being discussed, it is also settled whose teams shall have the honor of helping convey the pork to market next day. Isn't it jolly?

Western farmer's boys seem to love their fathers' business, and only leave the old homestead to set up for themselves, on that quarter section which the old gentleman has been "holding on to" for them; or they move a little further on towards the setting sun, where their Uncle Samuel offers them a free home. Wouldn't a little of this neighborly way of doing things render Eastern farming more pleasant? G. H. A.

*Braintree, Wis., Nov.*, 1869.

REMARKS.—In the days of the early settlement of New England these "bees" were much more common among farmers than they have been of late years. We suppose that one cause of their going out of fashion was the unsatisfactory manner in which the work was sometimes done. When the farmer and his family dig through all their work alone, their pork may be dressed, their corn husked, and their apples dried a little nicer and somewhat more economically than when done at a bee. But they deprive themselves of the social element which made these neighborhood gatherings so enjoyable, particularly to the young, and which turned work into play. Which plan involves the greater loss? Solitude and want of company and diversion is an objection often made to the work of the farm. How far this objection may be obviated by bees, by exchanging work, and other plans of co-operative farming, is a question that may well be considered by farmers who wish to make their children love their homes and their business. We shall be pleased to have our correspondent continue his sketches of Western life.

## EXTRACTS AND REPLIES.

### THE HORSES OF NEW ENGLAND.

I am sorry that your correspondent in Pomfret, Conn., in his communication upon the "Horses of New England," should have entirely overlooked the efforts that are now being made to improve the horse stock of his own State. Our farmers have bred from the little degenerated descendants of the Black Hawk and Morgan stock, so thickly scattered over our State, until it is alleged, and I fear justly, that Connecticut breeds the poorest horses of any State in the Union.

Latterly, however, several well bred horses have been introduced among us. Your correspondent mentions Geo. M. Patchen, Jr., as a fine stallion. Mr. Wm. B. Smith of Hartford, and Mr. Geo. C. Hitchcock of New Preston, each own fine stallions by Geo. M. Patchen, which are consequently half-brothers to Geo. M. Patchen, Jr., both of which might be profitably used by our farmers. Both are of fine color—bright bay—of good size, and are good steppers.

Mr. Smith's Thomas Jefferson, by Toronto Chief, is also a fine colt, well bred and fast.

Then there is Mr. Hitchcock's Ashland that has twice taken a first premium at the Fairs of the New England Agricultural Society. As a stock horse this animal is by no means to be overlooked, especially as it was only last year that he received the first premium of $200 for the best stallion with progeny. For raising road horses, there are no better bred stallions in the country than Ashland. There are few that have a better reputation as stock getters,—none in New England.

Mr. Battell of Norfolk, had, and has now, if he has not disposed of him, a very fine young stallion by Hambletonian, that ought to produce a marked change in the stock in his vicinity.

The horses of our State need a great deal of improving, and I believe that the true way to do this is to encourage, in every way, those who are at the trouble and expense of bringing such horses as I have mentioned into the State.

A gentleman living in New Haven owns a fine stallion by Mambrino Chief, half brother to Lady Thorn and to Ashland, &c., that he keeps in Vermont, because the farmers of that State are more willing to pay for the services of a good horse than those of Connecticut! This simple fact tells the whole story as regards the reason for the inferiority of horses raised generally by the farmers of Connecticut.

It is undoubtedly bad policy to raise poor stock, and the sooner our farmers make a thorough change in this matter the better it will be for them.

CRUSOE.

*New Haven Co., Conn., Nov.* 24, 1869.

### CURING BEEF.

For some years past our beef has been too salt by spring. If you or any of your correspondents will inform me what quantity of salt will answer for a barrel of beef, you will very much oblige

*Auburn, Mass., Dec.*, 1869. A SUBSCRIBER.

REMARKS.—For a brine or pickle for beef we have generally used that made by adding a pound and a half of salt to a gallon of water. This is the proportion that was given, many years ago, in what was called the *Knickerbocker Pickle*. The editor of the *Germantown Telegraph* publishes every year the following, as the best receipt known:—To each gallon of water needed to cover the meat, add 1½ lbs. salt; ½ lb. sugar; ½ oz. saltpetre; ½ oz. potash. Boil, skim and cool before

using. The meat must be kept covered with the brine, by a flat stone or wooden follower. Towards spring the brine must be turned off, boiled and skimmed, and a little more salt added. We should advise to leave out the saltpetre entirely, as we consider it a rather dangerous article to use with food, and we have never used the potash.

Meat should not be salted the day it is killed. How long it should lay before being salted down, will depend somewhat upon the state of the weather and other circumstances. The animal heat must be entirely dissipated, and a change in the fibre of the meat be allowed to take place which, in case of steak is often expressed by the word "ripe." This makes the meat tender and rich.

### EXPERIMENT IN SHIFTING SEED POTATOES.

A friend gave me seventeen potatoes that were raised 200 miles from my farm. They weighed four pounds and twelve ounces. I planted them in thirty-four hills. I took the same number, of the same variety, that had been planted on my farm for twelve years, being careful to select those of the same weight; planted them in same number of hills, side by side, with the others. Both were treated in every way alike, as nearly as possible. On harvesting the product of each the potatoes produced by the old seed, and those produced by the new seed, were counted and weighed, with the following result:

| | New Seed. | | Old Seed. | |
|---|---|---|---|---|
| | *No.* | *Lbs.* | *No.* | *Lbs.* |
| Large or marketable potatoes, . | 428 | 102 | 350 | 82 |
| Small potatoes . . . . . | 630 | 32 | 780 | 51 |
| | 1058 | 134 | 1130 | 133 |

From the result of this experiment it appears, that while there was only one pound difference in the whole weight, between the produce of the old and new seed, there were twenty pounds more large potatoes from the new seed than from the old; and that there were seventy-two more potatoes in number from the old than from the new seed. It would seem, therefore, that it will not pay to change seed for mere weight; but that it will pay to do so in the increased value of the potato for market. John M. Weare.

*Seabrook, N. H., Dec.*, 1869.

Remarks.—We thank Mr. Weare for this statement of the result of his experiment. We believe that farmers in the vicinity of Boston generally buy new seed every year. What are the advantages of doing so? Have these advantages been demonstrated by careful experiments? We remember of hearing an intelligent man once say that he thought the necessity for changing seed originated in the want of care in selecting potatoes for seed. Perhaps the best would be sold or used, and at planting time those unsuitable for seed, either on account of their small size or immaturity, would be used, and consequently the crop degenerated, as corn or other grain would degenerate by the use of inferior seed. Facts, however, are more satisfactory than theory. And that stated by our correspondent is a valuable one. There are other points or questions that we should like to see illustrated by similar experiments. What is the effect on the time of maturity from seed potatoes grown in different latitudes? For instance, will potatoes grown in Maine ripen earlier in Massachusetts or Connecticut, or any other section south of Maine, than those raised at home or in places still further south? Mr. Weare did not conduct his experiment to test this question. May we not hope to hear from others on the subject of shifting seed potatoes?

### BEST HENS FOR EGGS AND CHICKENS.

As I am going into the poultry business somewhat extensively I write you in regard to the best kind of hens for laying; also for raising chickens. Please inform me. Loren Shepardson.

*Guilford Centre, N. H., Nov.* 14, 1869.

Remarks.—We do not know as we can do any better than to advise you to get the kind that *you love best.* This was the advice given in a recent communication in the Farmer to a man who asked what kind of farm stock he had better buy. It may not be entirely satisfactory, but there is probably more good sense in the advice than may at first sight appear. What suits one person will often displease another, in poultry, or in stock, farms, houses, carriages, associates, business, locality, politics, and even religion. One person can choose for another in few of these particulars. If we should recommend one of the modern fancy breeds of hens, you might object to the cost; if we named any other variety, some objection might be urged to that with equal force. There is undoubtedly a great difference between varieties of poultry, in some breeds one quality, in other breeds other qualities, are specially developed; but we believe there is a far greater difference after all in the care and keeping which are given them; and consequently that results depend more on the keeper than on the breed of hens kept.

### HOW TO MAKE APPLE TREES BEAR.

In answer to the question of S. Fisher "What shall I do with my apple trees," I will give my experience under similar circumstances. I have twenty Baldwin trees of about twenty years' growth. Three years ago they were thrifty, blossomed well as they had done for several years, but bore little fruit, and that of very poor quality. Manure would not bring fruit.

In June, 1866, I spread about fifty bushels of leached ashes broadcast over the land, (which was in grass,) then sowed on about one hundred pounds of gypsum. The next season I cut two fine crops of hay, getting, as I estimated, full pay for my outlay and labor in the increase of that crop. That year there were no apples in this region.

1868, I had two good crops of hay, and on one-half the trees a very good crop of apples.

Last May, the ground was ploughed, turning in a good coat of stable manure. The trees looked finely and blossomed fairly. The land was planted to potatoes, with a handful of ashes and plaster in a hill, and yielded, except just under the trees, at the rate of two hundred bushels per acre; but, best of all, those twenty trees bore one hundred and twenty bushels of the finest Baldwins I ever saw grown in New England, together with some thirty or forty bushels which fell off and were made into cider.

The potato patch extended beyond the ground

dressed with the ashes. The whole piece was manured and tended alike. Where the ashes were spread in 1866 the tops grew more rank, the drought had no effect, and the potatoes grew until they were dug to save them from freezing. Beyond the limit of the ashes the drought injured them, the tops died early and the yield was no more than one hundred and thirty-three bushels per acre, and very many of these were badly eaten by grubs, while those where the ashes were spread were as clean and handsome tubers as one could wish to see.

From my own success I am convinced that ashes will certainly do no injury to the apple trees or to the soil in which they grow. W. R. S.

*South Wilbraham, Mass., Nov.* 27, 1869.

### TO HIM WHO FEARS DISEASE AND DEATH FROM THE USE OF WATER RUNNING THROUGH LEAD PIPES.

Know you not, dear sir, that you must die if you do not have water? From an extensive observation of twenty years as "waterman" in all this region, I am fully persuaded that not one in a thousand suffers while living, or dies earlier, in consequence of using water conveyed in lead pipe.

There are occasional instances of lead poison, but this is no more a sufficient reason why all should be deprived of this best of all means for serving man and beast with the crystal stream, than is the fact that one in a thousand or in ten thousand who ride in the cars are injured thereby, a reason why railroads should not be used?

I say lead pipe is the best of all known conductors of water for family use—1st, because it is within the reach of all, and is the cheapest, in the long run; 2d, it is the most feasible conductor and the most readily adapted to all localities; 3d, it is the most easily and cheaply repaired when by any means it is out of order; and 4th, if the water used is of "hard" or lime water, the pipe will very soon be completely coated with a deposit of lime, similar to an egg shell, which renders it perfectly harmless.

In a few cases there may be a chemical peculiarity in the water which renders the use of lead pipe unsafe. In such cases cement or stone conductors should be used. Wrought iron or common gas pipe is, perhaps, next to cement, the safest in such springs. There are, however, serious objections to iron as well as lead.

A few years since lead pipe coated with tin inside was recommended very highly as a substitute for lead. But trial has proved this tin coating to be so thin as to be of little or no real value. More recently still a new pipe has been introduced and is advertised largely as "lead encased tin pipes," which is but another name for the former article, save that the proportion of tin is greater than in the tin *lined* lead pipe. If we will believe the advertisement, this is cheaper than pure lead. But when we compare the price of this kind of pipe, which is about double that of lead, with the price of pure tin pipe which is at least four and a half that of lead, we must conclude that the proportion of tin is very small, or that the tin is adulterated by other and cheaper metals. But more than this, it is clearly proved that in a great many instances water contains a chemical property that corrodes this tin or alloy much more rapidly than pure lead. In such cases one only has his choice between lead and tin as the base of his metalic poison.

In some sections, especially near cities, there seems to be an idea that galvanized iron is the only safe substitute for lead. Let us see. Iron is galvanized by immersion, at a given heat, after being plunged in an acid bath, in melted zinc. Pure zinc is the coating called galvanizing, which penetrates the body more or less, as it is thoroughly or superficially galvanized.

Now, then, take your choice, my spleeny friend. Will you prefer zinc, tin or an alloy of tin, or lead, as the metallic base of your poison, if poison at all? Experience has fully convinced me that zinc corrodes most rapidly, tin and its alloys next, and simple lead, which is not alloyed, because it is the cheapest of all its class of metals, will remain unchanged by water much the longest, and is therefore the most harmless of all known metallic conductors of water.

At all hazards, I will close by making the assertion that many more lives are lost by want of water than by lead or any metallic poison from conductors. P. J.

*Randolph, Vt., Nov.*, 1869.

### SALTPETRE FOR SICK CATTLE AND TURKEYS.

Having recently used saltpetre with apparently beneficial effects, I will make the following statement for the benefit of others. Sometime last winter a two-year old heifer began to cough, grow poor and weak. She would put her nose near the ground and cough, or rather gag badly, for some time. Fnally she got so weak as to stagger if she attempted to move quick. We dissolved about a common table spoon even full of saltpetre in warm water, which was put into a bottle and given to her. It appeared to help her at once. About a week afterwards another dose was given her. She continued to improve in health and strength, and was soon well, strong and fleshy. About a month afterwards another heifer was taken in the same way, was treated in the same manner, and with the same favorable result.

This last season we lost about thirty young turkeys; in fact, all we had except three or four. When about half grown they would droop and die. A neighbor suggested that the disease was probably worms. I took one that could hardly stand and gave it a piece of saltpetre, the size of a pea. Before night it began to walk about. The next day it was eating with the rest. I tried the same remedy with another one with a similar result.

*Marlboro', Mass., Dec.* 3, 1869. P. WELCH.

### TO DRESS POULTRY FOR MARKET.

There is a right and a wrong way to prepare poultry for the market, and a nice appearance adds many pennies to the house-wife's store. A bright, cold day should be selected for the operation, and the fowls should not be fed in the morning, so that their crops may be emptied. The old process of wringing their necks is entirely done away with. The heads of turkeys, geese, chickens or ducks can be chopped off with a *sharp* hatchet, so that one quick blow will do the deed. Have an assistant to take each one from the block; tie its legs together, and hang it across a stout line stretched from post to post. Here, let them hang until thoroughly blooded. If the feathers are desired, they must not be scalded, yet there is danger of tearing the skin if it is not wet. Pick them clean, but on no account remove the intestines. The meat keeps much longer if no air is admitted into the body. Our best poultry men plunge each fowl into a kettle of boiling water as soon as it is picked. This practice makes the flesh white and plump, and if they are in decently good condition when killed, gives them a fine appearance. A well-dressed fowl makes a good show if not very fat, while an ill-dressed one, no matter how fat, can never look well.

When the fowls are all picked and scalded, (a few moments is sufficient for that) tie the legs together, and hang up in a cool room; if this is not possible, lay them upon clean boards until the animal heat has passed away, but do not let them freeze directly.

Barrels do not make good packing boxes, the rolling of them injures the poultry. Clean, dry goods boxes, which every country store will furnish, are much better. Rye or oat straw placed between them so they cannot touch each other, answers the best purpose for packing.

If the fowls are well dressed and well packed they will keep sweet for a long time in cold weather, and can be sent by express or freight with the surety of their arriving in good order, and commanding the highest market price. A walk through our city markets about Christmas time, reveals to an observer that full half our poultry raisers do not understand the *right* way of preparing their poultry so as to look *attractive*. The scalding process is the secret. S. O. J.

*Bath, N. H., Dec.*, 1869.

### FARMERS' CLUBS IN STETSON AND GARLAND, ME.

Being in Stetson Tuesday evening, Nov. 16, I attended an agricultural lecture, delivered by Hon. Samuel Wasson, chairman of the State Board of Agriculture, I think. It was interesting and instructive. After the lecture, a farmers' club was organized, and much enthusiasm was manifested. Also at Garland, Friday evening, Nov. 19, I listened to the same gentleman upon the same subject. After the lecture, a farmers' club was also formed here—farmers, mechanics, traders, ministers and doctors subscribing their names to the constitution. In no way can the farmers spend a part of their evenings more profitaby or more pleasantly than at a live farmers' club. Success to the farmers' clubs of Stetson and Garland. P.

*Garland, Me., Nov.* 22, 1869.

REMARKS.—From the frequent notices of farmer's clubs that appear in the Maine papers, we think that they are just now more popular in that State than in any other part of New England. This may be owing to a provision in the law of the State by which a portion of the money drawn from its treasury for agricultural purposes must be devoted to the formation and encouragement of such clubs. We presume that Mr. Wasson is employed under this provision of the law, and we have no doubt that he will be eminently successful. We believe that all that is wanting in many agricultural neighborhoods to secure the organization of a good club is some one to "break the ice."

### SWELLED SHEATH IN HORSES.

I have a valuable horse that is badly troubled with a swelling of the sheath. After standing a short time it seems to inflame and become hard and swollen. I keep him thoroughly clean and have tried cold bathing and various simple remedies, but it still continues. Exercise makes it better while it continues, but after standing it swells again. Can you or any of the readers of your valuable paper give me any remedy for the trouble?

W. P. GRIFFIN.

*Annisquam, Mass., Dec.* 4, 1869.

REMARKS.—Beyond the simple remedies which you say you have tried, we do not feel competent, from want of knowledge as to the cause of the difficulty, to offer any advice. It is often said that the knowledge of a disease is half its cure. Dr. Dadd was once consulted in a somewhat similar case, where the poor horse had been bled and physicked almost to death without any benefit. On examination, he found the trouble to be a tumor or fungus of about one-half of the bulk of a man's fist. This removed, the difficulty ended. If there is no intelligent veterinary surgeon in your neighborhood, we must advise you to get your family physician to make a careful examination of the case. Perhaps some reader of the FARMER may be able to advise our correspondent what to do for his horse.

### A GOOD COW ON GOOD FEED.

In March, 1868, I bought a cow for $125. Wishing to try an experiment with liberal feeding, I fed her four quarts of Indian meal a day. She was milked eighteen months and twenty-one days, when being in good order for beef, she was slaughtered, dressing 805 lbs., and sold for $116,—the rough tallow weighing 77 pounds. At the time she was killed she was giving seven quarts a day, and during the whole time averaged 10 quarts a day. Calling the time 568 days, the whole amount of milk was 5680 quarts. The account then stands as follows;—

| Cow | DR. | |
|---|---|---|
| To original cost | $125 00 | |
| To keeping 563 days at 40 cents a day | 227.00 | |
| | | $352.00 |
| **Cow** | **CR.** | |
| By 5680 quarts milk at 8c per quart | $454 40 | |
| By beef sold | 116.00 | |
| Net profit | | $570.40 |
| | | $218.40 |

*Brighton, Mass., Dec*, 1869. GEO. W. WILD.

### MR. QUINN'S PEAR CULTURE FOR PROFIT.

It was refreshing to me to-day to read the—as far as it went—free and just criticism of that seventy-two page book, "Pear Culture for Profit," by Mr. Quinn. There is one other point I would have spoken of, and that is the opinion it gives of dwarfing trees. Lamentable is the ill success Mr. Quinn has had; and if he has had no better success in other departments, his book is anything but a safe or reliable guide. He says in chapter fifth, "With a single exception the culture of the dwarf in the orchard is a failure." * * * * "For a long time I had reason to suppose that the Angiers Quince was well suited as a stock for many of our best varieties of pears, but as far as my personal observation has gone, the number has dwindled down to one variety,—that is the Duchesse D'Angouleme. How long this kind will do well on the quince root, I am not prepared to say."

Admit, if we must, the facts in the case, and of how much value is the book as a guide for others? That the culture of pears on the quince has been a success, thousands attest. Hardly an author who has written has not approved it. I quote but one; that admirable work by Baker, "Practical and Scientific Fruit Culture." At page 296 he says, "The period of barrenness before maturity in the pear, on free stock, is cut short by the quince and the life extended nearly as long as the standard, if cropped judiciously. The life of pears on the quince independently has, I believe, been understated. * * * * An observation of those from thirty to forty years of age, in the gardens of my esteemed partner, Hon. Marshall P. Wilder, which are still bearing crops; and a large number of fifteen to twenty years of age, apparently in full health and productiveness, must lead one to extend the period." I only add that Mr. Baker is well supported by most of our best writers, who, while they recognize the fact that dwarfs are not as long-lived as standards, yet for *profit* they give the preference to the former.

I have a thought to offer on another point, and

that is in regard to the Old St. Michael, to which you refer in a late article. I am convinced, after a careful observation of some years, that it is not true that this old variety has "run out." There has been grown, and without any particular care, in the extensive pear grounds of the late John Gordon, Esq., at Brighton, one tree with as fine specimens as can be desired. The tree is very healthy, and bears annually good crops. I have come to the conclusion that some kinds of stock are peculiarly fitted for it. I believe that by double grafting—on the quince first—we *can* produce perfect fruit. Our work is not to denounce, or set down in despair, but, instead, experiment in grafting or budding on other sorts, until the most favorable one is discovered. I am in no mood now to argue the question of influence of stock on the graft, but assume the point, fully believing, from other experiments, that our success lies in this direction, and I fully believe our end is to be attained. It is *probable* it would crack on the Dix, but simply possible that it would in the Vickar.

*Boston, Mass., Dec.*, 1869. T. W. S.

### BONE-MEAL FOR COWS.

Within the last year or two, farmers in this section have experienced considerable trouble and inconvenience from the sterility of their cows. It is believed that less cows are with calf at the present time, in proportion to the number kept, than ever before at this season of the year. Many are inquiring for a reason and for a remedy of the trouble. One farmer of experience and observation has given bone meal to cows of this habit, as he believes with beneficial results. A gill is given with other feed three times a day every other week. He think it has also proved beneficial with sick animals. A heifer lost her appetite and grew weak until she lost the use of her legs. Bone meal was administered, and in a few days the heifer was on her feet, and was soon apparently as well as ever. These facts are stated to draw out the opinions and knowledge of those better informed than ourselves, rather than as a statement of value of itself.

*Springvale, Me., Nov.* 25, 1869. ZEN.

### CHICKENS MADE LAME BY EATING PUMPKIN SEEDS.

Perhaps some may think there has been enough said upon the subject. But I think I will give a little of my experience that may be interesting to some who keep poultry. In the fall of the year when feeding pumpkins to my stock near the buildings, the fowls have eaten enough of the seeds to affect their legs; sometimes, if long continued, proving fatal. E. A.

*St. Johnsbury Centre, Vt., Nov.* 30, 1869.

### LARGE POTATOES.

While digging my potatoes this fall, I thought I would try some of the largest in a Shaker bushel measure. Thirty-two of the Orono variety filled the measure heaping full. After drying a month, the thirty-two potatoes weighed fifty-two pounds. The largest one weighed two pounds and eight ounces. HENRY DAY.

*Monmouth, Me., Dec.* 1869.

## SPECIAL CROPS.

If it were safe for farmers to place their chief reliance on any one crop under any circumstances, cotton at the South would seem to be that crop. But with all the facts and circumstances which have been urged in favor of cotton as a specialty, the experiment is generally admitted to have been disastrous to planters.

On this point we find a statement by a correspondent of the *Southern Cultivator* that we think worth the attention of those who advise northern farmers to devote their attention to some one crop, and of those who propose to follow such advice. The name of this correspondent is G. W. Stokes, Wooten, Lee Co., Geo. Southern agricultural writers generally back their statements with their own sign-manual. We admire this fashion. There is a frankness, manliness, honesty of purpose apparent in this style, which is lacking when one adopts any sort of fiction for a signature.

This Mr. G. W. Stokes is a planter, employing about sixty hands on his own land, and is also a merchant and furnishes supplies to from forty to sixty of his neighboring planters, taking the produce of their plantations or farms in payment in the fall. He says:—

I find that those who buy both corn and meat (all they use) never have any surplus money left; that those who buy all their meat, and only a portion of their corn, have money over, in proportion to quantity of corn purchased; and that those who raise all their corn, even when they buy all their meat, are doing very well. The few who raise both corn and meat, make money very fast. These I know to be facts, in the face of the argument, that the same acre that yields 15 to 20 bushels corn, worth $20 to $30, will yield 700 pounds to 1000 pounds seed cotton, worth from $35 to $75. It is difficult to explain why corn purchased costs so much, and that raised on the farm is so cheap; yet I know, and no doubt thousands of observant planters know, that he who buys all his provisions, never has any surplus cotton money.

I am inclined to think that the bought corn does not really cost so much, but that the principal explanation of these facts, is that a good planter can raise nearly a full crop of cotton, and at the same time raise an ample supply of corn, because with good management the heaviest of the work in the corn crop is past, before the heaviest of the cotton crop begins, so that he who plants cotton alone, loses enough time to raise his corn, for the simple reason that without any corn crop at all, he can raise very little more cotton than he could had he a sufficient corn crop planted.

Now if it is a fact, that a planter who raises no corn or meat, has never had any surplus money since the close of the war, with cotton ranging high all the time except 1867, how can we expect anything but ruin, the very first year our cotton crop is cut off, or the price is low? If our people had raised their corn and meat in 1866, '67, they would not have cared a straw for the low prices of cotton in the latter year named, even if the speculators could have controlled the price, and kept it down. I live in as good a cotton and corn region as I have seen anywhere, and we are highly favored this year, although our crops are not full, yet they are so much better than they are in most sections, that we certainly ought to feel thankful. I travelled over most of the West and North the past summer, and having seen the effects of the drought upon the corn crop, and I pity the cotton maker, who has not raised (at least) his corn this year.

—Mr. Wm. Whitfield, of Oakland County, Mich., has imported four Hampshire Down sheep from England. They cost at his place nearly $200 each. One of the rams weighs 305 and another 294 lbs.; the ewes weigh over 200 pounds each.

THE LODGE PEAR.

This pear is very popular in Philadelphia, where it was supposed to have originated, but it has been disseminated from Hartford, Conn., as Smith's Bordenave, and said to have been imported with an invoice of trees from France. The fruit from which our illustration was drawn was raised in the garden of Col. Wilder of Dorchester.

The tree is hardy, but not very vigorous, except when grafted on the leading shoots of old trees, but further north it does not succeed as well as in the vicinity of Boston and Hartford. It produces abundant crops, which adhere strongly to the branches during the autumnal gales, and the fruit keeps well for one of its season.

The following description of this pear is copied from Cole's Fruit Book:—

*Size*, rather above medium, three and a half inches long, including stem, by two and a half in diameter; *form*, acute, pyriform, broad across the middle, some specimens inclining to obovate, outline and surface a little irregular; *calyx*, small, sunk in moderately deep basin; *stem*, one inch long, rather stout and curved, sometimes swollen at the base and set without depression; *color*, dull green, overcast with a thin coat of russet; *flesh*, greenish white, very melting and juicy; *flavor*, rich, vinous, with a distinct high Brown Beurre aroma; *maturity*, first of October; *quality*, very good.

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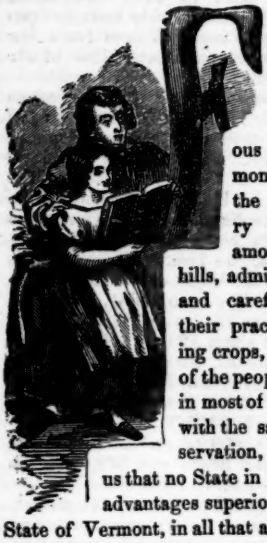
MR. WALSH'S COLLECTION OF INSECTS.—The *Prairie Farmer* understands that efforts have been made to obtain this valuable entomological collection for some Eastern museum, but is anxions that it should be retained at the West, and expresses the hope that it will fall into the hands of Mr. Charles V. Riley, of St. Louis, who was associate editor with Mr. Walsh of the *American Entomologist*, and is also State entomologist of Missouri, and will probably now become chief editor of that publication.

## FARMING IN VERMONT.

**The Climate—Soil—Water-power—Grazing lands—Stones—Stock—Horses—Cows—Steers and Oxen—Sheep—Poultry—Sugar—Quarries—Means of Transportation—Schools—Opportunities for Pecuniary Gain, and for Moral and Religious Attainments.**



FOR several years past, we have annually spent two or three weeks in various portions of Vermont, mingling with the people of every class, rambling among its vallies and hills, admiring the scenery and carefully observing their practices in cultivating crops, and the habits of the people. Some travel in most of the older States, with the same careful observation, has convinced us that no State in the Union offers advantages superior to those of the State of Vermont, in all that affects ones present or future prosperity.

The climate is well calculated to give shape to the character of its people. The face of the country is generally uneven, and a great part of it mountainous. All through the winter months, the ground is usually covered with snow, which remains dry, and affords easy and rapid communication from one point to another. The transition from winter to spring is less trying than nearer the seacoast, where freezing and thawing succeed each other for weeks in succession, and where the east winds blow all the moisture out of invalids exposed to it. Frost does not penetrate as it does where less snow falls, so that as the snow melts it passes into the ground, and the surface soon becomes dry and agreeable. Some exceptions to this are found on the roads where clay predominates. On account of the even and dry condition of the atmosphere, persons affected with pulmonary complaints find the climate more congenial than in warmer latitudes.

A large portion of the soil is fertile, and fitted for the various purposes of agriculture. It is generally deep, of a dark color, rich, moist, warm, loamy, and capable of resisting the effects of moderate drought. The low lands yield corn and hay abundantly, and of the best quality; while the broad swells are excellent for small grains, and are among the best pastures in the country. A large portion of the land is free from stones; most of the hills, even, may be easily cultivated to their summits. Quarries of fine marble are found in various portions of the State, and porcelain earth, lead and copper ones. Water power is abundant to a far greater extent than it has yet been employed.

It may be that the prime necessities of life can be produced at a less cost of labor in some other States than in Vermont; but taking into account all the elements that make life a success, we look upon this State as pre-eminently inviting to those who wish to engage in agricultural pursuits.

By a reference to the census of 1860, we find the population stated at 350,000 souls, and that it has $122,000,000 worth of real and personal property. They have about 3,000,000 acres of improved land; 75,000 horses; 175,000 milch cows; 50,000 working oxen; 160,000 other cattle; between 700,000 and 800,000 sheep; 52,000 swine; 3,000,000 pounds of wool; raised in 1860 more than 5,000,000 bushels of potatoes; made 16,000,000 pounds of butter, and between 8 and 9,000,000 pounds of cheese; cut 100,000,000 tons of hay; made 10,000,000 pounds of maple sugar, and harvested $200,000 worth of beeswax and honey. The value of slaughtered animals in that year is set down at $2,610,800!

The horses of Vermont have for many years stood deservedly high, and have reached their excellence by observing the true principles of breeding and tending, aided by the natural advantages of soil and climate. Less attention has been paid to improvements in the bovine race, but it is now being turned in that direction, and promises gratifying results. No climate seems better adapted for the rearing of horses or neat stock, especially to endow it with the qualities of docility, hardihood, and the largest powers of endurance. They grow up in a rigid region of pure air and water, and become so much accustomed to atmospheric changes as to be little affected by them in after life, when properly treated.

Now that there is a depression in the demand for fine-wooled sheep, the farmers of the

State are directing attention, more than ever, to horses, neat stock and the dairy. It seems to us that more flattering opportunities were never offered to those wishing to engage in agricultural pursuits. Opportunities, not only for making money, but for that distinction in the public mind which all desire, when it can be gained by being useful to the world.

Sheep culture is by no means abandoned in the State. Large numbers of Merinos are still kept, while the long-wools are introduced, and found profitable. The amount of poultry may be trebled, and a compensating demand found for it all. Where the cereal grains are so extensively cultivated, poultry can be cheaply raised. It is compact in form, easily dressed and marketed, and readily sells at paying prices. The forests nearly or quite supply the people with sugar, which is one of two or three of the leading articles of cost consumed in the family.

With this view of the matter we are inclined to think one of the writers of the State may be correct in saying,—"that when we take into consideration the number of acres of improved land, its appraised value, number of inhabitants employed in agriculture, and amount of production, we far surpass any other other State in the American Union."

Another consideration of vital importance is, that all this vast production lies almost at the threshold of the doors of the purchaser. The means of transportation are so constant, rapid and cheap, that the articles produced are worth almost as much where they grow, as they are in the markets where they are consumed.

The opportunities, however, for pecuniary gain, in this favored spot, are not its principal allurements. Its crowning glories are in good laws, wisely administered; in the means of education afforded by schools, but chiefly in intelligent mothers; in the industry and liberal economy of the people, and in the ample opportunities for the moral and religious training of all classes, which is to preserve the institutions of our fathers, perpetuate our power as a nation, and make us an example worthy of imitation by all the peoples of the earth.

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—One man in Walpole, N. H., has raised eight acres of the best tobacco that was grown on the Connecticut river last year. A good deal of land in that town will be devoted to the cultivation of the weed next season.

*For the New England Farmer.*

## FARMING IN 1849 AND IN 1869.

A great many people are prone to look on only one side of a picture or of any object that may be presented to them, though almost every thing is said to have two sides, and we know that almost every body has two eyes. Let us try to use both eyes for a few moments, and to examine both sides of our present "hard times."

During the late war, prices of farm produce ran up excessively high, and farmers gathered a richer harvest than ever before since our national existence. This state of things has raised the ideas of farmers. But now the war is over, and the high prices it produced, are no longer realized in full. Our taxes have been greatly increased and so has the cost of the labor we hire. Where, then, it may be asked, is the bright side of our condition? Let us see if we can find it.

We will compare 1849 with 1869. Twenty years ago I paid about $20 tax; I paid for a hired man, six months, $60; I estimated his board at $39; my NEW ENGLAND FARMER then cost me $2.50 a year—total for these three items in 1849, $126.50.

In 1869 I paid $50 taxes, for hired man $150; cost of his board say $78, and the FARMER $2.50,—total in 1869, $280.50.

Now I take the ruling prices at this market,—and, by the way, we have a good one,—and estimate the amount of each of the several articles of produce named, required in 1849 and in 1869 to pay my taxes, hired man and my newspaper:—

| Article | Price in 1849. | Price in 1869. | Amount required to pay,— $126 50 in 1849. | $280 50 in 1869. | Surplus. in 1869. |
|---|---|---|---|---|---|
| Potatoes, bush. | .17 | .50 | 759 | 561 | 198 |
| Corn, " | .62 | 1.69 | 203 | 187 | 17 |
| Beans, " | 1.50 | 3 50 | 83½ | 80 | 3½ |
| Hay, ton | 8.00 | 20.00 | 16 | 14 | 2 |
| Butter, lb | .12 | .40 | 1037 | 681 | 356 |
| Eggs, doz | .10 | .31 | 1205 | 875 | 330 |
| A good cow, | 12.00 | 40.00 | 10½ | 7 | 3½ |

Thus I have paid my taxes and my hired man in 1869, notwithstanding their much higher nominal cost, with a considerably smaller amount of produce, than I did in 1849.

If I had sold potatoes to raise the money, it would have taken 198 bushels less now than in 1849, a gain sufficient to supply a large family; if I had sold corn, 17 bushels less; if hay, two tons; if butter, 356 pounds; if cows, I should have saved the price of three and a half,—a pretty good beginning for a dairy; and so of the other articles named. Our farms, also are worth at least 25 per cent. more than in 1849. I might compare the present prices of horses now with those of twenty years ago, but the foregoing is sufficient.

What farmer who compares the above figures will wish for the return of the old times, with its low rate of taxation and of labor? If our taxes have increased our means for pay-

ing them have increased in larger proportion. What other class in the community are able to meet their increased expenses, and have as many dollars "to boot" as the farmer, or who can look into the dubious future with less fear than he?

If the prices of what he raises are reduced, so are the prices of those articles he is obliged to buy. One dollar will buy as much sugar and many other groceries as two dollars would during the war. Still many of us grumble and complain until we actually come to think that in no time in the past was our condition so deplorable as in the unfortunate present.

Others may look on the dark side of things till dispair is daguerreotyped on their very countenances; but for one, I am determined to look upon the bright side as long as I can.

*Springvale, Me., Dec.*, 1869. ZEN.

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*For the New England Farmer.*

## EXPERIMENTS WITH SUPERPHOSPHATES AND OTHER MANURES.

Does it pay to use superphosphate? is a question we frequently hear asked, but the answer is generally unsatisfactory. Some think it does, others think it does not. Some, high in authority, tell us it is all a cheat and a humbug, and that the farmers of the country would be better off if the whole lot were dumped into the dock, and advise us to spend our money in digging muck and making compost.

Others, whose testimony is equally as good, tell us it does not pay to dig and cart bog water and sand, for the small amount of vegetable matter it may contain, but tell us to buy pure flour of bone, and make our own superphosphate.

The manufacturers tell us we can't do it, that it implies so nice a combination of the several parts as to require the skill of a practical chemist to do it. Each one tells us that his is the best in the market, and produces thousands of certificates to prove it.

Now, under these circumstances, what are we poor farmers to do? Do as that good old farmer Levi Bartlett, of this town, advised me and thousands of others to do. He said, "be your own judges, by making a fair, impartial and comparative trial of the different fertilizers, both home-made and commercial. Use the steelyards, note the result and keep a true account. Then if any fertilizer fails to give satisfaction, you may come to the conclusion that that manure is a humbug and a cheat, or that your land is already rich enough in that particular kind of fertilizer."

I have been making these experiments for the last three years for my own satisfaction, and they have always proved satisfactory. Last spring I procured several brands of superphosphate, also a barrel of Pure Flour of Bone, from the Boston Milling Company, which I saw advertised in the NEW ENGLAND FARMER. I made two barrels of Phosphate by using equal parts of bone and ashes, after the recommendation of Dr. J. R. Nichols. I also made a small quantity with acid, using sixteen pounds bone, six pounds sulphuric acid. I dried off the paste fit for handling with ten pounds plaster; this I call *my* phosphate. I also used equal parts of hen manure and rich loam, that had received the wash of the barn-yard.

The following table will show the result:—

| | No. of hills. | No. lbs. Phos. &c. | No. lbs. of corn | No bu to the acre. | Pr. ct. of increase. |
|---|---|---|---|---|---|
| Nothing . . . . | 100 | | 20 | 10 | |
| Glasgow . . . . | 200 | 20 | 116 | 29 | 190 |
| Bone and Ashes | 200 | 30 | 98 | 23½ | 145 |
| Lobster Chum . | 200 | 40 | 73 | 18½ | 92 |
| Bradley's . . . | 200 | 20 | 121 | 30 | 200 |
| Wilson's . . . . | 200 | 20 | 100 | 25 | 150 |
| My Phosphate . | 200 | 20 | 125 | 31½ | 212 |
| Hen Manure Com | 200 | 3 bu. | 131 | 32½ | 227 |
| Croasdale . . . | 200 | 20 | 135 | 33¾ | 237½ |
| E. F. Coe's . . . | 200 | 20 | 136 | 34 | 240 |

In making up this table, I allow eighty pounds to the bushel. I plant my corn one pace each way; this gives 4000 hills to the acre, which require 400 pounds Phosphate.

The ground on which this trial was made is a ridge of dry land, broken up last year. It had been mown four year and produced about one ton of hay to the acre last year. The soil was uniform in character throughout, and I conducted the experiment in a fair and impartial manner, doing the work myself.

Bradley's and E. F. Coe's Superphosphate I bought at the stores in this town; Wilson's I had of G. Walker, Concord, N. H.; Croasdale's I obtained of S. H. Robbins, Portland, Me.; Glasgow of Duncan & McKellar, N. Y., and I have no doubt that they were fair samples of what is put into the market.

I have used considerable muck, but never received any beneficial results from it, except as an absorbent in the hovel and hog pen.

It seems to me, that a series of experiments conducted in the manner I have these, must show conclusively, whether it pays to use commercial fertilizers or not. My experiments certainly show that they are not *all* "humbugs and cheats." In all of these experiments, some of the superphosphates have given better results than either of the home-made kinds. Take, for instance, hen manure, which is generally considered to be the best concentrated fertilizer we have on the farm, and E. F. Coe's Superphosphate, and compare the results. I was offered $1.12½ for the one and one-half bushels of hen manure used. This made ninety-one pounds of corn, worth $1.42, which gives me twenty-six per cent. on the investment. The sixty cents worth of phosphate made ninety-six pounds corn, worth $1.50; this pays 130 per cent. In none of the three experiments has it paid me *less* than this. A little more figuring will show that the hen manure, compared with the phosphate is relatively worth 37½ cents per bushel, allowing nothing for labor of composting. It is a

very easy matter to advise us farmers to keep a large pile of this excellent fertilizer on hand; but they do not tell us where to get the hen manure.

I have raised over one hundred bushels of good sound corn with these special fertilizers applied in the hill the past season, and from accounts kept, charging the whole cost of the manure, labor, interest, &c., I find it has cost a fraction less than seventy cents a bushel.

We make fine wool a specialty. Our greatest desideratum is hay; the next is wheat, with which to bread the family, and I know of no better way to obtain these than to raise corn as I have named. After it is harvested, plough the ground, and spread on from eight to ten cords per acre of good manure from the sheep hovels or barn cellar. In the spring, as soon as the ground will admit, give it a good harrowing or cultivating, and sow to wheat and grass seed.

Mr. John Johnson,—not the famous one near Geneva, N. Y., but of this town—has brought an old worn-out farm to a high state of cultivation by a similar practice. He raises on an average twenty-two bushels of wheat to the acre, and keeps a large and thrifty stock of cattle. Mr. W. H. Palmer, another neighbor of mine, five years ago, bought an old, worn-out farm that did not average half a ton of hay to the acre. It will now average two tons. His practice is similar to mine and Mr. Johnson's. Other farmers are adopting the same practice with good success.

I should have said that my own phosphate cost two cents and eight mills a pound, besides the labor of making, and a narrow escape from getting badly burned with the acid. I don't think I shall use "Uncle John's" "superphosphate of brains" in making my superphosphate hereafter, but buy it *ready made*, and I think I have brains enough to know which to buy.

S. C. Pattee.

*Warner, N. H., Dec.*, 1869.

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*For the New England Farmer.*

## COUNTRY HOMES FOR CITY PEOPLE.

Much has been said and written about country homes for the clerks, mechanics and laborers whose business is in the city. The question has engaged the attention of noble minds and able pens. In occupying your attention and that of the public, I do it, let it be understood, not because I claim to rank with the best and wisest men of the day, but simply to detail a little of my own experience in this matter of a country home. My intention always is to regulate my desires by reason and the circumstances in which I am placed, and to attempt only that which I feel a degree of certainty I can attain. By so doing I may attempt less than others, and may attain less; but I shall have one or two advantages—my failures will be fewer, my mortifications less.

A couple of years ago my business brought me into Boston. Having a family of five boys the question was,—What shall I do with my family? If I hire a tenement in the city—such an one as I shall like to have, and in such a neighborhood as I shall want to bring up a family in—the rent will be equal to, if not above my whole salary. To hire a tenement in such a place in the city as my circumstances would allow, I was satisfied would be no place for me to bring up a family in. I wanted to be with my family as much as possible; and the only alternative was such a place as last described, or a place in the country.

It did not take me long to make up my mind that my home must be in the country; but at such a distance that I could reach it every night at a small cost. After looking at a number of places within the eleven miles circle of Boston, I finally fixed upon a place in Needham. I must admit I was a little frightened about locating in this town by the reputation it had won. Every body with whom I conversed said, Why! you are not going to live there in Poor Needham! You may raise white beans and pennyroyal, but not much else.

Being somewhat wilful in my nature, and a little independent in my judgment, I made up my mind, notwithstanding all that was said, to locate in poor Needham. I found a place there of about twelve acres of land on which stands—not a palatial palace, not even a French-roofed modern residence,—but a good substantial farm-house, containing eleven rooms besides attics. The sitting-room and parlor are fifteen by sixteen feet, and two of the bed-rooms are of the same size. There was also a small barn and carriage house, with sheds attached which belong generally to farm houses. On the land there are about seventy apple trees and about the same number of young pear trees, many not in bearing yet.

For this place I paid forty-five hundred dollars. I bought a cow and a heifer fifteen months old, for which I paid one hundred dollars. I also purchased another parcel of land of about eleven acres, for five hundred dollars. This lot was part pasture and part wood. On the first mentioned purchase there is about five acres in sprouts. For fencing the pasture I paid two hundred dollars. My outlay for tools and other things would amount to another hundred dollars. Making my whole investment fifty-four hundred dollars; the interest on which at seven per cent., would be three hundred and seventy-eight dollars; to which add eighty dollars, the price of my season ticket for a year, would make the whole four hundred fifty-eight dollars a year.

I suppose some will ask the question, why buy so much land? I had five boys, four with me at home, who, besides going to school, could do a great deal about the place. They could milk the cows, plant and weed, as well as a man, and would thereby acquire the habit of doing something and taking care of

something, which would be a training for whatever station they may fill in after life. All this is worth something,—how much, those who have the training of boys can estimate as well as myself.

Well, then, altogether my rent was four hundred and fifty-eight dollars a year. What kind of a place could I get for this money in Boston? Then my family had the benefit of country air and good schools; if not quite as good as Boston at present, we believe they are fast improving.

On the first of June, 1868, I entered upon this place, with which I opened an account, which was balanced on the first of June, 1869. By which balance I found the place debtor to the amount of three dollars and sixty-one cents. That is, I had sold fruit, butter, milk and eggs for as much as I had paid out for labor, and for meal, corn, and other things I had to purchase for the farm, less three dollars and sixty-one cents.

Now, then, what did I have for my four hundred and sixty-one dollars and sixty-one cents? In the first place, I had a good large house, pleasantly located, to live in. Those acquainted with city rents can judge of the situation and style of house this money would have paid for in Boston. Besides the use of the buildings, I have had all the apples, pears, strawberries and other small fruits for my family's use; I had all the vegetables I wanted for the whole year, with potatoes enough for my next planting, which are worth more than the debit balance; I had all the eggs and poultry I wanted for the year; I had between two and three hundred pounds of pork; I had all the butter and milk I wanted for my family for the year; I had all the fire wood needed for my kitchen stove; and on the first of June, 1869, the expiration of the first year, I had one cow, and instead of a heifer fifteen months old, I had a two-year-old heifer, giving me eight quarts of milk per day; also one calf ten months old, and another, one month old.

So much for a country home in poor Needham. How I did it, and further details of my experience in farming, I will leave for another time. THOS. WHITAKER.

*Needham, Mass., Dec.* 1, 1869.

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*For the New England Farmer.*

## FOREIGN AND NATIVE FARM HELP.

In the NEW ENGLAND FARMER of November 13, I observed an article by Mr. Jameson, of Irasburg, Vt., entitled "Help and Stock for the Farm."

If I understand Mr. Jameson right, he believes that American farmers' sons make superior farm help;—that they understand the nature and wants of cattle, the comparative value of hay, straw, and roots to be fed to them, the treatment of the soil, &c; that they are not given to smoking, drinking, and profanity, and that they are small eaters. The foreigners are represented as being unskilled laborers, given to smoking, drinking and profanity, and the idea is expressed that the happiness of the family cannot be perfect while all their time is taken up to minister to the wants of such ravenous boarders.

Now, sir, it seems to me that Mr. J. makes a gross misrepresentation of the two classes of help of which he writes. Let us look at them for a moment.

I admit that the American farmer's son, raised upon his father's farm, will make a skilful workman; at least, he has a chance to be so. Still I do deny that foreigners, generally speaking, are unskilled workmen. Why, sir, what makes the American farmer's son a skilled workman, but the fact that he has been accustomed to work on his father's farm? And why should not the foreigner be considered a skilled workman who has been raised under a superior system of farming? It is a fact beyond dispute, that the system of farming in Europe is considerable ahead of the system of farming in New England. Farmers in Europe can pay from ten to twenty dollars a year in rent for every acre of land they occupy, and make money at that. Could they do so unless they managed their business systematically, and had a good knowledge of every detail of farming? And why should not men trained up under such a system be considered skilful workmen, as well as those who have grown up on farms in New England? Let Mr. Jameson cross the line into Canada, and he will find a system of farming at least equal, if not superior, to that of New England. In Canada they raise good stock and good crops. Who are they that own these farms and raise these crops, these cattle and sheep in Canada? Why, sir, they are mostly foreigners; and not a few of them are the Irish and French of which Mr. J. complains.

Four years ago last spring, I commenced farming. I had never owned a farm before; having spent the greater part of my life in the city. Well, the farm was badly run down when I got it, and that, too, by the sons of American farmers. The first year I did not cut hay enough on the place to winter two cows. Last winter I had hay enough on the place to winter nine head. I think that is not very bad, do you, Mr. Jameson, for a foreigner, and a Scotchman, *at that!*

Why sir, what has made this nation—in which we live and of which we are proud—a first-class power amongst the nations of the earth? I claim that foreign skill and foreign labor have had very much to do with it.

Another objection of Mr. J. to foreigners is smoking. I admit that a great many foreigners use tobacco, but do not many American farmers' sons do the same, and some of their wives and daughters? If smoking, chewing and snuffing tobacco is condemned in the foreigner, why not in the native?

Another objection of Mr. J. to foreigners is

their profanity. This is a valid objection to any man. Profane language is a wicked and contemptible habit, unworthy of every one who claims the name of man; and I am sorry to admit that a great many foreigners use profane language. But are sons of American farmers guiltless of this debasing sin? From my observation in Europe and America I am compelled to affirm that young Americans are more addicted to gross profanity than any people with whom I have ever conversed. Not four hours since, I was in a blacksmith's shop where a few farmers' sons were talking together. I do not think that either of them spoke a sentence without using some grossly profane word.

Another objection of Mr. J. to foreigners is drinking or intemperance. Well, here again I admit that the German has a liking for his lager beer, and the Irishman for his whiskey, but are Americans the people to cast the first stone at those caught in the very act of "drinking?"

The last objection to foreigners, urged by Mr. Jameson, is the destruction of the happiness of the family in consequence of their gluttony—"ravenous boarders" as he calls them. If this objection was made considerately, I must pass it with silent contempt. If it was a thoughtless remark, it deserves no notice.

Let me say, in conclusion, to Mr. Bullion, that his best course will be to hire the best men he can find without much regard to the fact whether the Almighty fixed their birthplace on the east or the west side of the Atlantic Ocean. D. M. H.

*East Canaan, N. H.*, 1869.

## ENGLISH FARM HORSES.

As Americans are aware, the English farm horse is called the "cart-horse," being totally different from the trotting affinities used on this continent. These cart horses are treated in about the same comparative way in respect to the nags as the laborer lives in comparison to the more independent class. The cart horse is made to eat up all the chaff blown from the grain when winnowed, and as every farm in England grows more than three times the quantity of grain ever produced on American farms, this chaff is the main support, for it is sifted through seives for the purpose, the coarse portion given instead of hay, and the short, fine portion fed with very small quantities of grain (oats and split beans) in baits given by the "carter," whose duties consist of making his teams look fat and sleek on the greatest quantity of rough food mixed with the least grain possible. The horses, from eating so much chaff, drop in their carcass and are always very deep and round, the geldings having the appearance of mares in foal when viewed from a little distance, and the great objection by the carter to going out of a walk with English farm teams is that it destroys this round barrel look, while the farmer dislikes to see them trot, especially on the road, because their great weight shakes their feet and legs and brings on side bones, puffs, &c. Four horses go to a wagon in a general way, about three tons besides the wagon being a load on fair roads, a small boy accompanying the carter. No reins are used excepting when ploughing "G. O.," for the carter walks by the side of the horses, and in meeting on the roads the teams turn out for each other on the opposite side to the one customary here, that the carters should not be between the horses or vehicles.

The cost of keeping cart horses in England is not much more than half what it is to keep the nags; "but will they do as much work?" says the American farmer. They (the English) plough somewhat deeper than the Americans, and though the teams are not out so many hours, they keep pulling away all the time they are out, very seldom sweating, as their immense bodies draw along whatever is behind them with little effort; in fact it is not much for one of these animals to walk away with what would make two of the undersized ones here scratch a good deal to start with.—*Country Gentleman.*

## PHYSIOLOGY OF EGGS.

Every fowl has two small organs near the extremity of the body, called the ovaria. It is filled with elastic tissue, and feels under the finger like sponge. The eggs are started here, and those which will mature a year or two or three years hence are in embryo. One is forced up, is seized by the stroma, which is seventeen inches long, and passed rapidly through. When the egg leaves the ovary it consists of yolk only, but in its passage through that short canal, the yolk is surrounded by enough albumen to perfect the chick. The white of the egg has in it all that nature requires for making bones, muscles, blood-vessels, connecting tissue, skin, and feathers. Just before the egg leaves the body, this canal has the power of secreting lime for the shell. This shows how valuable the egg is as nutriment, and it also shows what demands are made for rich food by a hen that lays an egg daily. Besides what she requires for her sustenance, she is called upon to secrete the material for the body of an entire chick, and also retains for the little creature sufficient to last many hours after it leaves the shell. It shows also that a hen cannot make albumen so rapidly, except out of albuminous food, such as wheat, meat, and small animals. It is not true that there is a certain number of eggs, and that, this number exhausted, no more can be expected; but it is true that the secretions lessen as old age comes on, and latterly the hen fails to have sufficient force to carry forward the process. The practical bearing of this is

that we must see that the fowl is always well kept. The way to have good laying pullets is to quicken the circulation and strengthen the system by liberal nutriment. In conclusion, the speaker referred to the fact that the yolk is food for the young for the first three or four days—that careful housewifes make a mistake by attempting to feed them before the expiration of this time. Let the mother bird have charge, and success will be certain, for she knows better than any man can what the chick requires.—*Dr. J. V. C. Smith.*

### TREATMENT OF A COW DISEASE.

We have had a "cow disease" in this neighborhood. The legs and teats were all covered with sores and blotches. As soon as we discovered it, I got up the cows, started a fire in the steamer to give us plenty of hot water, and four of us went to work washing and *fomenting* the affected parts with as warm water as the cows would bear. We also used some Castile soap and a little borax. The latter is a capital thing for cleaning and softening the skin, but I do not know that I should have used it only that I knew the men would doubt the efficacy of such a simple remedy as warm soft water and soap. I extolled the virtues of this white powder, gave strict injunctions to be careful of it and not waste it, and especially not to put any on the sores until they had been softened by the hot water. Then apply a little of the borax and rub it in gently with warm water and soap to form a lather. Then wash again with warm water and soap, and finally give another thorough washing with warm water alone. In this way I succeeded in getting the legs and teats washed thoroughly clean. This was the real point. We then rubbed the legs, bag, and teats, with crude petroleum, and repeated it two or three times, and the cows got well. The disease has been very general and in some cases quite serious. We do not know what it is. Some thought it was the cow pox, but that I suppose is usually confined to the teats and udder, while on my cows the inside of the forelegs were worse affected than any other parts. I attributed it to mosquitoes or some other insect.—*J. Harris, in Am. Agriculturist.*

Cows Sucking Themselves.—I have a fine cow, which at three years old acquired the habit of taking her own milk. Unwilling to sacrifice so promising a heifer, I resorted to various devices to break up the habit or to prevent its successful practice—the most successful of which was a light wooden frame of light pins or rods, similar to the lower part of an old fashioned splint bottom chair, fastened on her neck so that she could not get her head around to her side. This accomplished the object, but it worried and chafed her, and did not allow of her whipping flies or licking herself. It looked uncomfortable, and I didn't like it. Last spring I secured a plain snaffle bit in her mouth, by means of a narrow strap passed over her head between the horns and ears. On two or three occasions the hair on the udder was found slightly smeared with saliva, but no milk was ever taken. The bridle bit does not interfere in the least with eating or chewing the cud. It was removed in November. The cow was milked during the winter, and is now giving ten or twelve quarts of milk per day, and no indications of returning to her old habit.—*H. M. Hart, West Cornwall, Ct., in Country Gentleman.*

Why do we Oil our Whetstones?—We oil our whetstones for several reasons. The first is that almost all stones, unless oiled, become glazed or burnished on the surface, so that they no longer abrade the metal. The second reason is that most stones, after being oiled, give a finer edge than they do in a dry or merely wet state. The pores of the stone become in a measure filled up, and, while the action is rendered continuous, its character is altered. A dry stone is very apt to give a wire edge to a tool, and although this sometimes happens when oil is used, yet it does not occur nearly so often. It has been said that a little carbolic acid dissolved in the water which is used to moisten a whetstone or a grindstone will greatly increase the friction, and thus promote the action of the stone upon the steel instrument. If this be true, and there be no unforeseen drawback, carbolic acid will prove invaluable to all who have to sharpen tools or grind metallic surfaces.—*Mining and Scientific Press.*

A Cheap Boiler or Steamer.—J. S. Seely of Kendall County, Ill., gives the following description, in the *Prairie Farmer*, of a boiler or steamer used in his neighborhood and which he says is the best he has ever seen. Procure a sheet of common sheet iron, the heaviest that can be got; make the sides and the two ends of a box the size of the sheet, and nail the iron on for the bottom. Make two walls of brick or stone so near together that the edges of the box will be far enough from the fire so that the sides will not burn. The back will want protecting by iron or stone. The farmer will want a chimney at one end, and, if to burn coal, will want a grate. If used to steam, the box will not need to be more than six or eight inches high, with a box the same size to fit tight, with slat bottom, to set on top as high as desired.

I have one neighbor who cooks fifty bushels at a time, and another one hundred bushels of potatoes with a very small amount of fuel. The latter has two sheets riveted together, with pan and box 4x8 feet; the box made of good flooring, matched.

## USES OF THE SNOW.

THE revolutions of the seasons are not only necessary in producing and perfecting the crops upon which all animated beings subsist, but they are peculiarly grateful to restless man, who would die of monotony if beautiful June should continue for six months. But pleasant as are the changes of the seasons, one can hardly see the earth wrapt in its white mantle, with all its late delightful colors, varied scenery, fragrant flowers and singing birds, swept away by the fierce breath of winter, without some feelings of sadness. He cannot regret the change, because He who holds the earth in His hands, has ordered all this in Infinite wisdom, and we know it is all for the best. Nevertheless, a sadness will steal over us, and this should lead us to look for the compensations which the change brings with it. There is a bright side to the picture. "While our gardens and fields are buried in snow, and our roads are blocked up with drifts, are there no benefits in this winter covering which partially make up for its admitted evils and discomforts?" Undoubtedly there are, and especially so to the farmer. He would look to it more with an eye to profit than with a poetic fancy or scientific research; will recall the old proverb, that "snow is the poor man's manure," and look for luxuriant crops of rye and grass to spring up where it has been so amply protected. He has been told that snow abounds in ammonia, more, even, than is contained in rain water, as in falling, the flakes sift the air through which they pass, and return all the impurities which they gather, as fertilizers to the soil. Snow has a very considerable absorbent power. A writer illustrates it as follows:—Take a lump of snow of three or four inches in length, and hold it in the flame of a lamp; not a drop of water will fall from the snow, but the water as fast as formed will penetrate or be drawn up into the snow by capillary attraction. It is by virtue of this power that it purifies the atmosphere by absorbing and retaining its noxious and noisome gases and odors."

Deep snows prevent the ground from freezing, operating like a blanket to keep off cold winds and preventing radiation. Under these circumstances snow melts next to the ground, and the water supplies the springs and streams. Were it not for this—in the absence of rains—great inconvenience would be felt in the want of water for stock and other domestic uses, as well as to drive the wheels of factories.

Snow absorbs exhalations from the earth, and when it melts returns them to the soil as fertilizing properties.

Another important use of snow is the protection it affords to vegetable, and even animal life. In very cold weather, the partridge will plunge deep into the dry snow, entirely out of the wind, and there sleep as comfortably as in a nest of down. "Even in northern latitudes, there are plants which require more or less protection in winter. Nature provides for them most wisely. She hangs over them the branches of neighboring trees and bushes, gathers about their roots a many-folded blanket of dry leaves, and last of all, spreads over them a fleecy mantle of snow. Sweep off the snow from our wheat fields and meadows, and at least a portion of the crop would be winter-killed. The buds of peach trees are often killed in severe winters; but if a few branches get under the snow, they produce a splendid show of fruit."

Dr. Kane, in his "Arctic Expedition," mentions finding various plants in perfect condition under the snow, which could not have lived uncovered. He says:—"Few of us at home can realize the protecting value of this warm coverlet of snow. No eider-down in the cradle of an infant is tucked in more kindly than the sleeping dress of winter about this feeble flower life."

To the farmer, there is another compensation. The snow enables him to enter upon woodlands and haul off fuel and timber, where he could accomplish but little with wheels; and to work in swamps, to drain them, or to

take away their rich deposits of muck to fertilize higher lands.

These and many other considerations are so many compensations for the loss of beautiful landscapes and freshly-growing crops in the summer months.

Nature is never at fault. Man often is. If he does not like some of her changes, it is wise in him to turn the sadness which they cause, into sunshine, by more careful research into the wonderful life about him.

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### THE EYE OF A HORSE.

Having occasion to drive a few nights since when it was so dark that one "could not see his hand before him," we were led to observe the conduct of an old and faithful horse, with a great deal of interest, and to inquire, Can a horse see in the dark better than a man? In this case, on one or two instances, he seemed to have left the road, and if continuing so for fifty rods, would be likely to plunge down an embankment into a pool not pleasant to bathe in, in a cold and dark night. He was pulled to the right, but insisted on going directly forward, or, as it seemed, to the left. Upon placing the head near the dasher of the carriage, and turning the ear forward, it was evident that the animal was not walking upon the grass; but, the road being a little sandy, it could not be decided whether he was in it, or not. So he was allowed to take his own course, and brought us safely through the perils of that night.

The question, "*Can a horse see better than a man in the dark?*" was then clearly in favor of the horse.

The circumstance related led us to read some accounts of the structure of the eye of the horse, and to examine drawings illustrating it. If all who drive a horse—whether it be light or dark—would do the same, they would not only feel more safe, but could not fail to be impressed with the wonderful wisdom which framed an optical instrument of such exquisite workmanship and mechanism; one so admirably fitted to collect the luminous rays which come to the eyes of a horse from the numberless objects he passes when in use. A special provision is displayed in it, fitting him to endure the strongest glare of a tropical sun, such as is reflected from the desert wastes he is called to pass over.

Unlike the pupil of a man's eye, that of the horse is oblong, instead of round, and when exposed to the direct rays of the sun, the opening rapidly contracts, so that the pupil looks like a mere line. The edges of the *iris*—that colored ring which surrounds the pupil—then nearly touch each other. The luminous rays are thus excluded. As darkness comes on, the iris moves back, so that the animal sees just about as well as when it was light. But when it gets to that "darkness which may be felt," it is hardly probable that a horse would feel as safe as in the daylight.

Another singular fact is, that the horse has *no eyebrows*. *The eyelashes* are peculiarly arranged so as to guard against the ingress of too much light, or of insects. There is another beautiful arrangement, too, about the horse's eye, to clear it of dust or of other matter that is annoying. "Concealed within the inner corner of the eye, is a triangular-shaped cartilage, called the *haw*. It is concave within, exactly to suit the globe of the eye; it is convex without, accurately to adapt itself to the membrane lining the lid; and the base of it is reduced to a thin or almost sharp edge. At the will of the animal this is suddenly protruded, passes rapidly over the eye, and shovels up every nuisance, mixed with tears, and then, being speedily drawn back, the dust or insect is wiped away as the cartilage again passes under the corner of the eye." It is not man alone that is fearfully and wonderfully made.

These brief explanations may give the night traveller confidence in his beast, and be the means, perhaps, of returning him safely home, although bewildered by the "blackness of darkness" which had enshrouded him.

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### BUTTER-MAKING IN WINTER.

The chemical man of the New York Farmers' Club stated recently in reply to an inquiry that when perfectly sweet cream is churned, the butter globules are broken by mechanical action alone, and the product is apt to be mashed or greasy, the grain being destroyed. When the cream is slightly soured the lactic acid helps chemically to weaken the casein coverings of the globules. The butter comes more quickly, and, all other things being equal, it is better to have the cream somewhat sour. Many practical butter makers

find that by heating the milk by putting the pan after the milk is strained over a kettle of hot water, that there is little trouble in making butter from sweet cream in the winter season.

On this subject we find the following remarks by Mr. X. A. Willard in the *Western Rural*.

The food on which a cow is kept, has considerable influence not only on the quality and quantity of butter she will yield, but on the time required in churning. If bran, oats, and corn meal be given to the cow in connection with the potatoes, the cream will be of better quality, and will be more easily churned than that made from potatoes and hay alone. It may be remarked here that when neither grain nor meal is fed to cows in fall and winter, in addition to hay, and the extra feed is composed of materials of which starch and sugar and water are the chief ingredients, the cream requires to be churned at *a higher temperature* than that produced from food containing a good proportion of nitrogen.

There is another trouble in fall and winter that often retards the churning—the milk and cream are not kept at an even temperature. If the milk is allowed to freeze and thaw or to fall to a low temperature while being set for cream, there is more difficulty in getting the butter speedily. The milk or cream should not be allowed to fall below fifty degrees. Where no conveniences are had for keeping the milk at the proper temperature while the cream is rising in fall and winter, good results may be obtained in scalding the milk by placing it in a pan over hot water on the stove. As soon as a little "crinkle" is observed on the outer edges of the thin coat of cream which rises, remove the pan to a room of moderate temperature or where the temperature does'does not fall below fifty degrees, and the cream will not only rise rapidly, but can be churned, generally, with facility. The proper scalding of the milk will be easily learned by experiment. If scalded too much, the amount of cream will be diminished.

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*For the New England Farmer.*

## COUNTRY HOMES FOR CITY PEOPLE.

Desirable as a country home may be to many of the people whose business is in the city, I would not advise all to make the experiment. There are many in the city who are to all intents and purposes *city people*. If they go into the country at all for a home, it will be either because sheer necessity compels it, or because it is fashionable. A few wealthy men can afford both a city and a country residence,—one for summer and the other for the winter. Such men can afford to do as they please.

But as a general rule, those whose feelings and preferences are entirely with the city do not enjoy themselves in the country, particularly in the more remote suburban towns. Their are towns so near the city as to be almost city itself; in these towns many might enjoy themselves who would be lonely indeed a few miles further out. Even city people may enjoy themselves in such a location. But without a real love of the country, the comparative cheapness of homes in these retired localities should not be allowed to induce one to make the experiment. However much they may enjoy the summer, when winter comes and they find themselves away from the theatre, lectures and other entertainments and city society, they will forget the enjoyment of the summer and become disgusted with what they term the solitude and loneliness of the country, and desire to get back again to the city as soon as possible. But to the lover of the country there is no loneliness in such a situation. He finds ample means of enjoyment and amusement. If one loves his books and his family, he need never be lonesome; but then there are neighborhood gatherings and sociables which make the country enjoyable to one who likes the country and country people.

But every one from the city will not buy from twenty to thirty acres of land. Many could not if they would, and would not if they could. They may not all have four or five boys; they might not all have a taste for the farm, though they loved the garden. Many would love to pick the peas, to dig the new potatoes half an hour before they were boiled —so very different from the shrivelled, wilted ones they are compelled to take in the city,— or to enjoy the luxury of nice choice ripe fruit of their own raising. For these purposes a quarter or half an acre of land would be sufficient. Others might choose to keep a cow in order to have fresh milk and fresh butter. In this case they would want from two to three acres,—the quantity depending on culture and quality. Plenty of these homes can be obtained at reasonable rates, and I would advise all who buy in the country to buy at least one quarter of an acre of land. In some suburban towns the houses are so near together that there is little choice between them and the city.

My own tendencies are to the country, although born and brought up in a manufacturing town in England, and the greatest part of my life having been spent in manufacturing. Yet my love of country life and the farm have a rather curious and not perhaps an uninteresting origin. My father was brought up on a farm, and even in England was considered a good farmer. But like thousands in this country he was attracted by the apparently readier and easier way to competence and wealth, to business in the town. His fate was like that of thousands of others that leave the farm and whom we never hear from—financial ruin. We always hear of those who succeed, but those who fail are forgotten. He always considered it as a mistake that he left his farm; to his family it certainly was a misfortune.

When a boy I attended two courses of lectures; one on Galvanism, Electricity and Pneumatics, and the other on Chemistry. These lectures created in me a taste for natural philosophy, and gave direction to my subsequent studies. After having studied inorganic chemistry for a time, I turned my attention to organic chemistry. I was aston-

ished and delighted when the idea burst upon me that farming was the science of chemistry reduced to practice. To my mind the farmer became a new man, and farming a new business. The doctor I had always regarded as a man of science, as were professors, &c.; but that the awkward, clumsy, ignorant farmer was also a man of science—a chemist—was new and wonderful indeed to me. This was before I had read Liebig.

I give these particulars to show how I acquired a taste for farming, and how natural it was for me to look to the country for a home, and to buy land as I stated in a previous article, I had done.

My desire from the time of my discovery of the connection of chemistry with farming has been to be a farmer; but destiny and I believe there is a destiny that shapes our ends, rough hew them as we will,—has thus far prevented me from gratifying my desires.

With this knowledge of chemistry and this love of the country, when but a boy, I often visited farmers with my father, and was able to give scientific reasons for many of the things which were done by them, and for others which they said should not be done, but for which they were able to give no other reason than that they had been taught so to do, or so not to do, by those who had preceded them on the same land. As I became older I made these excursions alone, as opportunity offered, and I generally spent my holidays with the farmers, studying chemistry, while others were spending their time in foolery or drunkenness. I also studied anatomy and physiology, with reference to farm stock,—making the study of sheep a specialty. I have continued to read whatever I could find on agriculture; and I remember a few years ago of being laughed at by my friends, and scolded by my wife, because I accepted a present from a friend of a wheelbarrow full of the NEW ENGLAND FARMER and *Country Gentleman*. These I read and studied, believing that the many empty shelves in my brain had better be filled by this knowledge than by none.

Having said thus much of myself and of caution to others, against rushing thoughtlessly into the country, I must reserve further details of my farming operations, promised last week, for another occasion. THOS. WHITAKER.

*Needham, Mass.*, 1869.

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*For the New England Farmer.*

## ARE GREEN CORN STALKS MEAN FODDER?

GENTLEMEN:—In the *Springfield Republican's* report of the meeting of the State Board of Agriculture, Dec. 8, at Pittsfield, Dr. Loring is reported as saying that "*green corn stalks are the poorest and meanest fodder ever given to a cow.*"

This statement is certainly from very high authority; and, so far as the report shows, was accepted by the Board. It may be correct, but is at variance with most of the statements which I have seen in the agricultural papers. On the contrary, both green and dry corn stalks have been considered among the best fodder for cows in milk.

It is the practice of others, and I have been in the habit of sowing a part of an acre with corn by the side of the pasture, so that in August and September, when the pasture grass was getting dry, I could have something green for the cows. I have *invariably* found an increase of milk, while the quality was in no degree impaired. So in late autumn and early winter my cows are fed in part with dry corn fodder, and as I have believed to advantage.

Let us have the experience and opinion of practical farmers in this matter. If we have been wasting our time in raising and feeding out the "*poorest and meanest fodder ever given to a cow,*" let us know it.

Then again, Dr. Loring says, "*oleaginous matters are bad for milkers.*" "*Corn, cotton seed and oil meal are of this nature, and are the ruin of thousands of cows. He had spoiled 25 to 30 in a herd of 50 on his own farm, in three years by this means.*" He recommends "*early cut hay, rowen and roots;*" so do I; but I do not agree with him in what he condemns.

When cotton seed meal first came into use, and the price was low, I used it freely, and for several winters with no apparent injury. Linseed meal, too, when I had occasion to buy feed, I have found good for cows in milk, both increasing the quantity.

But I have fed more corn meal than of both. In the early part of the season I grind corn on the cob, and when hard, the corn alone, and have never doubted the benefit of corn meal to the cows.

Now as to the injury to the udder: "*first one teat then another, twenty to thirty cows spoiled in three years, and then to the butcher.*" Was it all owing to the *oleaginous matter?*

In an experience of some fifteen years with Ayrshire and other cows and heifers, I have never had trouble with but one cow in this way, and she, coming in two or three times in mid summer, with only grass feed, and giving fifty pounds of milk per day, and being of a nervous temperament, I have found some difficulty in allaying inflammation;—yet at twelve years old, she is a good cow, with four sound teats. Another, at fifteen (also Ayrshire) is sound and hale, fed as above.

A few winters ago a practical farmer, a neighbor of mine, being out of butter, went to the store with a bag of corn to buy some at the then high price of twenty-five cents. Upon thinking the matter over, he decided to give his cows some corn meal instead of swapping the corn for pale winter butter, when he

found his cows to yield the golden article, and if they were ruined he kept it to himself.

I approve of a mixed feed, say wheat or rye shorts, with other meals; and I had supposed this to accord with the practice and the best authorities of England and Scotland.

*Amherst, Mass., Dec.* 10, 1869. L. S.

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*For the New England Farmer.*

## FARM HELP.

The success of "D. M. H.," as mentioned in FARMER of Dec. 11, in increasing the fertility of his farm is truly commendable, and I trust he will give us some idea of the method by which he increased his products from barely enough to winter two cows in 1865, to a sufficiency for nine head in 1868.

It is doubtless true that in most European countries, and in China, there are instances of remarkable productiveness resulting from good management. I experience great satisfaction in reading of the processes of agriculture in foreign lands and am inclined to adopt them as far as practicable. But I know that most of the foreign population employed among us are not qualified to take charge of a farm and to advise and direct in the outlay of large amounts of money that are expended by merchants, manufacturers and professional men who have accumulated fortunes and wish to retire to farms; a class represented by "Mr. Bullion," in the article criticised by "D. M. H." He is probably aware that the men who in England manage farms so well as to pay a rent of $10 or $20 per acre and still make money, are not seeking work in this country at from $20 to $30 per month. He also knows that a farmer's son who has shared in all the labors of the farm, is likely to understand the business, and that if he has that other qualification, "a determination to be a farmer," because he likes it, he would be desirable help.

There is no loss so great to a country as that of its young men. The most fertile soil, immense forest of choice timber, rich mines of gold do not make a wealthy country; but bleak rocks and desert sands, with the intelligent productive labor of young men, may become a powerful and wealthy State.

In New England the farmers send cattle, horses, and other productions to the cities and demand and receive a price in return; but the young men they raise up to maturity, the richest treasures they possess, the most costly and valuable of all their productions, are sent as a free gift to the cities, while they are dependent on transient help to carry on the farms. The owners of these farms soon become old, feeble and discouraged; their buildings decay and finally old cellars scattered through the land become sad momentos of once flourishing neighborhoods.

Now, Mr. "D. M. H.," if you want to hire, notwithstanding your defence of foreigners, I venture to advise you to hire your own son. Do not refuse him the wages you so freely give to others, but pay him honestly and generously. If you have not a son, it is your duty to encourage some other farmer's son in your vicinity, who is free from bad habits, and desires to give his honest productive labor to some one near home. You have not the interest of your town at heart if you try to crowd out any such young man for the sake of hiring for a few months some Scotch, Irish, or Chinese laborer, who, when he departs takes his wages with him, instead of spending it in your own town, as your son would do, for a farm or stock.

Then in regard to boarding farm help, I have seen something of the practice of having a farm house for the laborer and his family, while the proprietor lives in the enjoyment of all the privacy desirable in the family circle. I have in my mind a case of this kind, where the wealthy proprietor of the farm brings no burden upon his family, and his home in geniality, sociability and harmony is a model. His farmer enjoys like blessings in a comfortable cottage near by; his work is well done, the farm is productive, the stock thriving. If both these families were together, it would detract from the happiness of each. I do not know how it is among the Scotch, but Americans have some consideration for their wives, and if a man has gained wealth and desires a happy home on a farm he would naturally desire to see his wife happy and enjoy her company; but if he filled his house with strong, able-bodied men, hired from the streets at random, and boarded them at his table, over which his wife presided and for which she provided, it would not add to the happiness of the family.

In villages and cities, the married man works by the day or month or year and boards at home. What extensive merchant or manufacturer boards all his help in his family, yet does he not get faithful service? This idea is advanced considerately and is in accordance with practice in England and Scotland. Do the owners of vast estates there board all their help in their own houses, or do the tenants have wives and the laborers have wives, who cook, wash and mend for them. I expect the "silent contempt" of "D. M. H." will explode at this idea of allowing a laborer a home and a wife, as it did at the idea of hiring a farmer's son to work on a farm.

Z. E. JAMESON.

*Irasburg, Vt., Dec.*, 1869.

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—American dairying now represents a capital of $700,000,000. The cheese product of 1867 sold for $25,000,000, and the butter produce of New York alone, was nearly 85,000,000 pounds, and the quantity of cheese made 72,000,000 pounds. The value of these products, at a very moderate estimate, was $50,000,000.

## EXTRACTS AND REPLIES.

### PLAN FOR A BARN.

I wish to build a barn next spring, and being a young beginner at building, I wish to get a good plan. Having read something about building in the NEW ENGLAND FARMER, I thought perhaps you could furnish me with some plan or a book that has barn plans. I wish to build one with a cellar under it for cattle, &c., to cost about $1200.

*Westport, Conn.*, 1869. WM. H. TAYLOR.

REMARKS.—We have published several plans for barns in the FARMER, and we have one now in the hands of the engravers, which will be ready in a few weeks. The design, however, does not embrace a cellar. This might be supplied by the builder. If some of the readers of the FARMER who have barns that they think will suit our correspondent will send us plans we will have some of them engraved. With care in giving the size and proportions of the different parts of the barn an artistic drawing is not necessary. The general plan and arrangement are the essential parts. Let us have plans and specifications of a few *real* farmer's barns, such as are yearly filled with hay and grain; which are found to be convenient and comfortable, and which can be built by farmers of ordinary means, and not the mere castles on paper of the architects, which will cost more than the farm would sell for after it was built.

### FATAL CATTLE DISEASE.

I have recently lost six head of cattle. The first three dropped dead. I did not know that anything ailed them. The first one was a calf, six or seven months old, the next was a cow four years old, the next a two-year-old heifer. Soon afterwards a valuable bull died. Chunks of matter run out of his mouth that looked like his litter. The next that died was a yearling heifer. Her manure was black and blood came through her. She was in great distress. I noticed that she was sick at night, and she died the next morning. The last one was a cow. She grew poor for two or three weeks, but I could not discover that anything ailed her till a day or two before she died. Clots of blood came through her as large as one's fist. She eat well up to a few minutes before she died. I gave her sulphur, saltpetre, soap and milk, lard, rum, lime, &c., for about two weeks. Some of my neighbors have lost cattle in the same way.

HEMAN MORSE.

*Waterbury, Vt., Nov.* 23, 1869.

REMARKS.—We should fear that these animals had access to some poisonous matter which produced inflammation of the membrane of the gullet and intestines.

### MILK OR PUERPERAL FEVER.

I wrote you a short time ago, asking a name for a disease in cattle, which I imperfectly described. In reply you say you think it is puerperal or milk fever. Since making the inquiry referred to, there have been two more fatal cases where the symptoms were almost exactly like the case I mentioned. One of the last cases was a very large and valuable cow, owned by Mr. Leander S. Mowry, that calved about noon the 5th inst., and did well so far as anything connected with calving was concerned. By noon the next day she could not get up, nor could Mr. Mowry with any means he had at hand get her up. She died that night by 10 o'clock. With the exception of swelling very much more, she appeared to be sick just the same as the other. I saw her opened, and with others examined closely every part. There was no inflammation of the womb, nor was there in the first case, and with the exception of one lung being almost black, I could see nothing amiss. The stomach was perfectly *natural*, and no one of quite a number present could tell what caused her death. The other cow I did not see, but was told her symptoms and appearance on examination after death were nearly or quite the same as the one I spoke of first. Some persons said over-feeding was the cause; but as one had been fed one quart corn meal per day the past season; one with two quarts, and the other probably never had any meal, I think feed did not do it. As the flow of milk did not cease in either case, I thought it could not be milk fever, as I had always been told the opposite was the case in that disease, still if men of your experience say such is the case I must of course yield that point. As there is considerable anxiety felt in this vicinity in regard to this sickness, hope you will reply once more and oblige SENEX.

*Cumberland, R. I., Nov.* 27, 1869.

REMARKS.—These cases of disease demand the careful study of some skilful veterinary surgeon on the spot. If you have no such competent man, call on some intelligent physician. Puerperal fever is believed to be eminently contagious. The fact that there have been several cases, would rather confirm the idea that that is the disease. The black appearance of the lung complicates the affair, and indicates pneumonia.

### WHITE LEGHORN AND BRAHMA.

Seeing Friend Shepardson's inquiry about the best variety of hens for laying and chickens, I will give my experience. I prefer the White Leghorn as they are great layers and non-sitters, if you can give them a good warm place, as the best for eggs alone, and the Pea-combed Light Brahmas as the best for raising chickens; but would prefer a cross between these two as the best fowl for all purposes that I have ever kept. The chicks from this cross will mature earlier, and the hens will not want to sit as often as the pure Brahmas, and will lay much better during the winter months than any other breed that I have had any experience with, and I have had and tried most all of the many kinds that now abound. In crossing the above mentioned fowls I have been the most successful by using a Brahma cock and Leghorn hens.

D. G. S.

*Brownsville, West Windsor, Vt., Dec.*, 1869.

### SINGULAR EXCRESCENCE ON A COW.

Not long since I chanced to see a very peculiar mark or malformation on the back of a very nice thoroughbred Durham cow. The excrescence consisted of a horny substance growing on both sides of the back bone, just in the rear of the shoulders, and covering a space of a foot square. It is attached to the skin and lays down with its ends somewhat turned up. The scales or flakes of which it is composed are from half an inch to an inch and a half, or more, in width, and from one-sixteenth to one-eighth of an inch thick, and are very stiff, yielding only to great pressure, when the point breaks off. These flakes are sometimes torn off, rupturing the flesh badly, causing it to bleed. One flake as large as my hand lays close to the skin or flesh and has the appearance of a scab fastened by the oozing out of matter which

has dried on and become hard. The cause of this strange phenomenon is unknown to any person who has ever seen it. Can you, Messrs. Editors, or any of your readers, account for it or prescribe a remedy? ZEN.

*Livermore Falls, Me., Nov.*, 1869.

REMARKS.—Malformations are not uncommon in either animals or vegetables. Darwin remarks that "all who have studied monstrosities believe that they are far more common with domesticated than with wild animals or plants." Their causes are little understood. Why some people have six fingers or an extra toe or other peculiarity or "mark" is not easy, even for the learned, to say; nor is easier for them to say when the cause that produced these anomalies occurred. We don't know even the cause of warts, and we cannot tell the cause of the malformation described by our correspondent. Can any reader of his article give the desired information?

### DESTROYING ALDERS.

I would like to know how to kill alders.

THOMAS WILSON.

*North Becket, Mass., Dec.* 13, 1869.

REMARKS.—Another correspondent, "Farmer," makes a similar inquiry. The old rule, when people had more faith in the moon than they have now, was, we believe, to cut alders in the old of the moon in August, if you wished to have them die dead. But, whether you have faith in the moon or faith in nothing, we will recommend the last of August as the proper time to cut alders. Cut them close to the ground, or, better, into the mud, so that the scythe may pass over the stubs. Burn them when dry. The next summer mow the grass, weeds and alder sprouts that may spring up, and the alders will be to blame if they trouble you much afterwards. If you can flow the land on which the alders grow, and keep it flowed all summer, you may kill them in that way.

### SODA ASH.

What is soda ash? Where manufactured, and what is its commercial value? P. C. T.

*Pittsfield, N. H., Dec.*, 1869.

REMARKS.—Soda Ash is crude or impure carbonate of soda. We cannot say where it is manufactured. Its commercial value is given weekly in the FARMER, in the "Wholesale Prices," under the heading of "Drugs and Dyes." The quotations last week were 3⅛ and 3¼ cents per pound. We have experimented with composting it with muck on a small scale, when the cost was considerably higher than now, and our impression was that it was too costly for extended use as a manure.

### INDIAN CORN.

I propose to give an account of a crop of corn raised by me this year, which is not exactly a failure, nor yet a great success, but one that may perhaps be improved upon by some of your readers. Failures in farming when fairly reported are sometimes as profitable to others as successes. The best crops that I have ever raised, or seen raised in my neighborhood,—and our soil is naturally very good for corn—is about 50 bushels of shelled corn to the acre. Reports have been circulated of late years of between one and two hundred bushels to the acre, while with us 40 bushels are accounted a fair crop. Consequently the framers of these reports are very much ahead of us in the art of exaggeration, or we are much behind them in the science of agriculture.

I planted 27 quarts of corn on about three acres of land where potatoes grew last year; all but about one-fourth of an acre being sward, broken up last spring. The manure was all ploughed in. The corn on the sward land was much inferior to the rest, not starting as early nor making as rapid growth. On the old ground, the manure was drawn on in December, and laid in heaps of a suitable size for spreading all winter. On that the corn was earlier and much better than that where the manure was drawn on in the spring. Not having kept an account of the cost of raising corn before, I had supposed that the cost was less and the profits greater; but thus the account stands:—

| | |
|---|---|
| Drawing 85 loads of manure, 4 cattle and man 5½ days, | $16 50 |
| Spreading 3½ days | 8 25 |
| Ploughing, 4 cattle, 1 man and boy, 3½ days | 5 25 |
| Harrowing, 4 cattle and man, 2 days, | 9 00 |
| Planting, 2 men 2½ days | 7 50 |
| Cultivating, man, horse and boy, twice lengthwise and once crosswise, 2½ days | 9 37 |
| Hoeing once, 1 man, 5 days | 7.50 |
| Ploughing, both ways with shovel plough, horse, man and boy, 3½ days | 14 12 |
| Manure, 30 cords $5.00 per cord, estimating one-fourth taken up by the corn crop | 37 50 |
| Interest on land | 11 00 |
| Taxes | 3 10 |
| Total expense | $135 99 |
| The crop amounted to 130 bushels shelled corn measured in the bin by taking the cubic feet, allowance being made for shrinkage, at $1.45 per bushel | $188 50 |
| Leaving a balance of profit on 3 acres | $ 52 51 |

I charge nothing for harvesting, husking, &c., nor give any credit for three tons corn fodder and about 30 bushels ears refuse corn.

*Epping, N. H., Dec.*, 1869. M. J. HARVEY.

### FARMING BY A CRIPPLED SOLDIER.

In answer to your correspondent, "A Scrubber of Bush and Brier," in Weekly FARMER, Nov. 6, Monthly, page 574, I will give the experience, not of myself, but of one of my neighbors, with whose circumstance, I am nearly as well acquainted as if it was my own experience.

At the first battle of Bull Run, a man whom I will call Sanford was wounded and honorably discharged. He had nine hundred dollars, and with six hundred he bought twelve acres of land, similar to that of your correspondent. He had one cow, and with the remainder of his money he bought another cow, a horse, and a second-hand wagon and harness, and moved on his place in the spring. The land was formerly a good strong soil, very stony, and had been run pretty hard. There was the manure from three head of cattle and one horse on the place, which he spread on a small piece after ploughing, and planted to corn, raising a pretty fair crop. About one-half acre around the buildings he planted to carrots and other roots, and also one-half acre to carrots on my land on shares. These roots were a great help towards wintering his stock. He also raised one acre of potatoes on his own land, which he also used in wintering his stock.

Being partially crippled he could not command full wages, but whenever he had a chance he worked out, taking whatever he could earn, and at

some kinds of work he could do as much as any one. I myself paid him two dollars per day to work throughout haying time, it being dry at the time and he could do as much at that as any one. When not at work for others or on his own crops, he was clearing his land of stone, brush, &c., and otherwise improving it. Early in the fall I persuaded him to draw a quantity of muck from my swamp and put into his barnyard, which more than doubled the quantity of manure, a part of which he applied to his meadow and the rest to his planting ground, of which he cultivated no more than he had manure for. He also set out a large strawberry bed in his garden, from which he sold, the second year, nineteen dollars worth of berries. He has used considerable plaster on his meadow and pasture, which has had a good effect.

To make a long story short, he has gone on improving his land until he now keeps four cows and one horse on his little farm of twelve acres, and he actually sells more from his place than one of my neighbors does from fifty-three acres, and his place will now bring him him sixteen hundred dollars. He has perhaps laid out two or three hundred dollars in repairs to the buildings, including his own labor,—he having done all the work himself. It is true that farm produce was higher then than now; but you will observe that the most he had to sell was his butter and his own labor when not employed at home, and these are two products that have not as yet been affected by the decline of prices, and they will probably be about the last things affected thereby. I think that "Scrubber" may take courage from this man's experience, and remember that energy and perseverance will accomplish very many seemingly impossible things.

If a crippled soldier can accomplish such things on twelve acres of poor land, what ought we, who have our health, to do on our hundred-acre farms? Truly more than any of us do. I confess that I have learned many things of this man, and his methods of farming; and the reason I write this is that others may profit by his experience, if they will. B.

*Oak Hill, N. Y., Dec.*, 1869.

### STOOKING CORN SO AS TO CURE THE FODDER.

In the FARMER of Dec. 18, Messrs. "E. O. and H. M. D." ask how to cure corn fodder. I find it a very easy matter to cure it perfectly. Take a stout smooth pole, about twelve feet long and three inches in diameter at the largest end, put two legs in the large end with an inch auger, three feet eight inches long, and three feet apart on the ground; bore an inch hole three feet from the legs horizontally through the pole; fit a pin two feet long, so that it will go through half its length, and you have a stooking horse. Go into the field between the second and third rows, cut and set up before and behind the pin, on both sides of the horse, about twenty hills, which make a stook large enough. When enough is set up, take in one hand a good strong double band of rye or oat straw, put both arms around the stook and fetch it together tight as possible, turn over the tops and bind down close to the ears tight as you can. In tying down the tops, be careful not to move the buts from the ground. If corn is cut up before too ripe, before it falls down and becomes crooked every way, and is set up firmly, pointing a little to the centre and placed equally on all sides, and each stalk standing on the ground, it will save and cure perfectly, so that any quantity can be packed in a mow without heating. The whole operation depends on the workman; if a man undertakes it that don't care for the difference between a hill of corn lying down and one standing up, he won't make it stand. If some lies half way down and some stands up, or if as much again is set up on one side of the frame as on the other, and all twisted round, it certainly will not stand; and if it don't stand, it won't cure. If the operation is well done success will be sure. But there are many that pretend to stook in this way, that can't make a stook stand any how. As I before said, it all depends on the workmanship of the one who puts up the stooks. W. S. GROW.

*Westboro', Mass., Dec.* 20, 1869.

### SWELLED SHEATH IN HORSES.

My father once had a valuable horse that was troubled in the same way as Mr. Griffin's, of Annisquam, Mass., mentioned in FARMER of December 18, and cured him by washing and digging out the sheath with the fingers, using castile soap and water blood warm. After that give the horse gentle exercise. If the first operation fails to effect a cure, wash it out again in a week or ten days.

*Kensington, N. H., Dec.* 20, 1869. J. H.

### POTATOES.

I raised seven kinds of potatoes this year, viz.: Jackson Whites, Orinos, Stevens', Davis' Seedling, Goodrich Seedling, Prince Albert or Irish Pippins, and a few Early Rose. The Jackson White and Orino were hardly worth digging, being very small and rough. The Irish Pippins were poor and watery. The other kinds were extraordinarily good. The Stevens' are better for fall and early winter eating. Goodrich and Davis' seedlings are good keeping varieties; good table potatoes for spring and summer. A neighbor, whose farm adjoins mine, says his Jackson Whites were very good—the best variety he raised. Another neighbor claims the Irish Pippins are the best he raised. I planted half an Early Rose, but did not get an extraordinary yield. C. Martin planted fifteen Early Rose which produced eight bushel, but they rotted so badly that he removed them from his cellar. Two-thirds decayed soon after digging. J. House planted less than one bushel of the Chili or Chilian Pink, which produced seventeen bushels of grand eating potatoes.

### POTATO WASHER.

While speaking of potatoes, I would recommend the potato washer. Have used one six months. It washes potatoes well in less than five minutes, which would take twenty minutes at least to wash by hand. It is a great help to a farmer's wife, and is also convenient for washing potatoes for hogs.

### THE BEAN BRAGS.

I have made no count of beans raised this year, but last year I raised a stalk from one bean which bore 230 pods, which from actual count and estimate contained 1400 beans. This shows what the Thousand and One bean can do.

### A GOOD PORK BARREL.

For a small family that uses but little pork, a large stone jar—they can be had that will hold the salting pieces of a 200 pound pig—makes a capital pork barrel. Pack tightly with plenty of salt, and *always keep a little salt above the brine.*

### CHICKENS.

Last spring we had six hens of the Brahma breed; sold $6 50 worth of eggs, and raised thirty-six chickens, of which twenty-six were sold for $25 00, at twenty cents per pound. Have a good hen house, and think it cost no more to keep them shut up than it does to let them run after they get big enough to damage the garden and grain crops near the house. Give them plenty of water. Forty hens will drink a pailful in a day when eat-

ing dry feed. Have fed with ground corn, and sometimes corn and oats ground together wet up with boiling water, fed when cold. Have also fed mixed corn and oats, boiled potatoes, &c. Hope no one will think I am trying to tell a big chicken story. I can't do it this year, but with a little more experience and a few hints from the FARMER perhaps I'll try another year. C. F. D.

*Berlin, Vt, Dec.* 20, 1869.

### CRANBERRIES ON UPLAND.

Can you give me any information in regard to raising cranberries on hill plough land? What manure should be used, and how much, and how far apart should they be set, and when?

A SUBSCRIBER.

*North Prescott, Mass., Dec.* 13, 1869.

REMARKS.—We think that cranberries on hill or dry land should be treated very much as you would treat apple trees or corn on a wet meadow; and that is not to put them there at all. We should expect about as good success in raising fish in a sheep-pasture, as cranberries on dry land. The cranberry is a water plant, and we believe that all attempts to grow it contrary to its natural instincts have proved failures.

### RELIEVING CHOKED CATTLE.

In the FARMER of December 11, there is a description of an apparatus for relieving choked animals. The gag is all correct, but there are strong objections to putting a stiff broom handle down the throat. Instead thereof use a slim rod, the size of a whip handle, put a wooden ball in the shape of a Minnie bullet, on the small end, as large as will go through the hole in the gag—concave end down—and fasten it on so that it will not be pulled off; oil or grease the ball before using. This can be used with perfect safety from injury to the gullet.

Another remedy is to apply a small quantity of saltpetre to the roots of the animal's tongue. It makes them cough so violently that it is pretty sure to remove the obstruction and give immediate relief. C. R. P.

*Waterbury, Vt., Dec.* 19, 1869.

### BLOODY MILK.

We have a valuable three year heifer, which has given bloody milk from one teat, for more than two months. Bean meal, tincture aconite and garget have all failed to effect a cure. She is a very nice heifer, or I should not feel so particular. What can be done for her? G. D. BARTON.

*Chester, Vt., Nov.* 14, 1869.

REMARKS.—Try salt-petre, half an ounce twice a day, dissolved in her drink or feed, and bathing half an hour at a time with warm soap-suds, daily.

### GRADE DURHAM YEARLING STEERS.

A notice of my steer calves was published last January—Monthly FARMER, page 145—which at ten months old weighed 1400 pounds. They now measure six feet in girth. They have not been weighed recently, but are estimated at 2150 pounds. They had nothing but grass during the summer.

WILLIAM F. LOOMIS.

*Langdon, N. H., Nov.*, 1869.

—It is reported that nearly one-half of the potatoes raised in the northern part of Maine will be lost by the dry rot.

## AGRICULTURAL ITEMS.

—The Iowa *Homestead* estimates the average cost of producing a bushel of wheat in Iowa at not less than eighty cents.

—The students of the Iowa Agricultural College have, during the past term, earned one-half their board.

—In Wisconsin $80,000 have been added to the funds of the Agricultural College of the State University by the sale of agricultural college lands during the past year. These sales will add an income of about $6000 annually to its fund.

—Those keeping horses should twice a week throw into the manger a handful of salt and ashes. Mix them by putting in three parts of salt to one of ashes. Horses relish this, and it will tend to keep them in good flesh and their hair short and fine.

—A farmer in Bakersfield, Vt., during the past dairy season has made from fifteen cows 3000 lbs. of butter. He sold it for 45 cents a pound, realizing $1350. He also raised ten calves, now worth $100, and 1000 pounds of pork, which he sold for $130—making, as the proper income of the dairy, $1580, besides supplying his family.

—Secretary Boutwell has sent a circular to the Collectors of Customs directing them not to allow the landing of any animals from Europe without a certificate from a Consul that they are free from any contagious disease. This has been done in consequence of the prevalence of a hoof and mouth disease in Europe.

—A correspondent of the *Southern Cultivator* had a young horse whose nose was covered with warts, many of which were tender, bleeding, and very troublesome. He dissolved half a pound of alum in a quart of water, and with a brush or cloth wet the warts twice each day for ten days and they all disappeared.

—The *Prairie Farmer* says that the law passed three years ago by the legislature of Illinois, prohibiting the importation of Texan and Cherokee cattle, has been pronounced unconstitutional by Judge Gillespie; but does not give the ground on which the decision is based. Hundreds of suits through the States have been brought, and some of them tried, with varying results, under that law.

—Iowa is larger than New York or Pennsylvania—larger than New England, without Maine—and more productive than all of them put together. She has thirty-five million acres of rich, black mould, and to-day a clean furrow can be turned over thirty million of these acres. Although less than five millions are under cultivation, they produced last year eighty-five million bushels of grain.

—Where an old cow or an old horse is kept singly it is generally found in good condition, but when either are put with others it declines in flesh and animation. On account of poor teeth they cannot masticate their food as rapidly as others, and as mangers are usually constructed, the more

vigorous animals rob the weaker ones. So says the *Ohio Farmer* to enforce the admonition to take good care of the old animals.

—A worthy farmer in Egremont, Mass., sitting at his fireside the other evening, was disturbed by a heavy, suspicious movement outside, and came to the conclusion it was a bear. Peering through the darkness he saw a large black object, and he sets his dogs on it, but the supposed bear beat them off. Getting his gun he levelled the animal, and found on handling the carcass that he had slaughtered his old and valuable black hog.

—A correspondent of the *Western Rural*, who cured a cow of garget by giving her at first, as directed, four pieces of poke-weed root, about the size of a butternut, but finding she ate it greedily gave her in half an hour nearly two quarts, or all she would eat, says, "I find when a cow's milk organs are all right they will not eat the poke-weed root; but when the milk gets disordered they eat of it greedily till they have enough, when they stop, and you needn't try to make them believe it's good any longer."

## BEET SUGAR.

After having been engaged in experiments for the manufacture of sugar from beets for several years, a Prussian chemist succeeded in 1799 in producing several loaves which were presented to the king. During the blockade of 1812 its manufacture was commenced in France. In 1866 reports from 1426 factories in France and seven other adjoining European nations showed a production of 630,000 tons. This success in Europe has encouraged us to hope that the manufacture of beet sugar might be successful in this country, especially at the West. The attempts which have been made at different times and in different sections have not been as encouraging as was hoped. A few weeks since we published a rather unfavorable account of the enterprise at Chatsworth, Ill., where a large capital was invested and as was supposed the most skilful workmen were employed. But it is said that the season has been very unfavorable in that section to most crops the past year, and particularly so to the growth of beets.

It is with much pleasure, therefore, that we copy from the *Prairie Farmer* the following particulars of a more successful attempt at beet sugar making in Wisconsin:—

Mr. A. Otto, a practical German sugar-maker, left his native country with a small "kit" of tools and machinery, some beet seed, &c., intending to visit California and experiment with the beet for sugar there. On his way to this country, falling in with an intelligent countryman, his attention was called to the vicinity of Fond du Lac as very similar, in quality of land, to the best sugar districts of Germany. Arriving here, he visited that place, and was so well pleased that he at once decided to try the experiment there, and last year located about four miles from that town, on leased land, planted four acres of beets, and fitted up cheap and simple apparatus for manufacturing. The crop turned out well, and proved rich in saccharine matter, yielding a good quality of sugar.

His operations attracted the attention of Mr. A. D. Bonsteel, a citizen, and ex-mayor of the city, who carefully watched the progress of the workings of Mr. Otto, and became so well convinced of the profitableness of the enterprise that he entered into a business arrangement with him for the present year. Eighty acres of land were purchased and planted to beets, and, notwithstanding the unfavorable season, the peculiar fitness of the soil gave them a good crop of beets. More machinery was obtained, and the manufacture is now being prosecuted most successfully; about 1000 lbs. of a good quality of coffee sugar being turned out every twenty-four hours, with improving results as the work progresses. The crop is sufficient to occupy the works for at least four and one-half months, which will give an aggregate of 125,000 to 135,000 pounds of sugar.

The method of manufacture is not unlike that pursued at Chatsworth, the beets being grated fine, the juice extracted by centrifugal machinery, when it is defacated by milk of lime, purified by gas and charcoal filters and then reduced to the sugar point in vacuum pans. It is then poured into coolers, where it granulates. It is then prepared for market by separating the syrup by centrifugal machines.

The locality of Fond du Lac seems to embrace all the requisites to make the manufacture of sugar a prominent feature there; a soil of black sandy loam, underlaid with friable red clay, resting on gravel; abundance of pure soft water, obtained from Artesian wells, bored to the depth of 100 feet, giving a strong flow of water for three or four feet above the surface; cheap fuel obtained at a low price from the numerous saw mills in the neighborhood; cheap and abundant labor, which is always obtainable in the town at a few hours' notice, and both railroad and water communication with the outer world.

The beets are planted fifteen inches apart, each way, and have been cultivated the past year, almost entirely by hand labor; another season, with increased acres, suitable machinery will be introduced into the field culture.

With the light we now have on the subject, it seems as though there was no industrial enterprise in the West, deserving of more attention or more sure of giving good returns for the capital invested, and the day seems not distant when the great West will be supplied with sugar from home factories, and then turn the tide towards the sea-board, eventually driving foreign sugar from our markets.

HEREFORD STEERS.—In a business letter to this office, a correspondent speaks of a pair of matched Hereford steers, which he had recently seen, one year and five months old, weighing 2000 pounds, owned by Benj. Clark of Russell, Mass. They took the first premium in their class at the Hampden Union Fair at Blandford.

SALES OF STOCK.—Mr. J. A. Harwood, Littleton, Mass., has lately sold to George Hoover of Canal-Fulton, Ohio, the Short-horn bull calf *Mast*, got by Roan Prince 6370, out of Mattie Newell.

*For the New England Farmer.*

## COUNTRY HOMES FOR CITY PEOPLE.

In my last I omitted one consideration that my wife reminds me should never be overlooked by any city family that contemplates a country home, and that is the preferences of the wife. Indeed, she thinks the question should be decided by the wife rather than by the husband. After being in the stir, excitement and perplexity of business all day, the man might find in the quiet of his home an agreeable relief and contrast; but the woman who has spent the whole day there, and, if in the winter, without scarcely seeing a neighbor, might find the seclusion monotonous and irksome in the extreme. Such a residence should be attempted by few city ladies, and never without careful consideration. If one is satisfied that she can make the sacrifice—and a sacrifice at first it would be to most city ladies—from her love for her children and for home cares and duties, the trial may be made.

I found on an examination of the soil of Needham that though somewhat gravelly and sandy, it was not what might be termed poor. It is warm and quick. There is in the town a large amount of peat meadow. These are two desirable combinations of soil. The soil of my first purchase is a combination of clay and sand; sand enough to make it light and loose, and clay enough to keep it from blowing away. The gentleman of whom I purchased it had owned it four years. He had applied lime, phosphate of lime, and considerable manure bought in Boston. The old farmers made a good deal of fun of him; called him the Boston farmer, &c. When he bought the place it sustained a cow and a horse. The first winter I was on it I kept two cows, a two-year-old heifer, and one calf. This winter I keep three cows, one heifer, and two calves. I entered upon the place the first day of June,—not a good time to make improvements. One thing I had learned from observation in England—that whenever I found stock well kept, I found land well cultivated, and a wealthy farmer, though he only hired his land; but where I found poor stock, I found poor land and a poor farmer, though he might own the land. Finding that manure was eleven dollars a cord, I said I cannot afford to pay that price, nor can I afford to buy special fertilizers, yet I must manure highly.

Mr. Brown, the editor of the FARMER, paid me a visit in the fall of 1868. He said "you will soon keep five head of full grown cattle on this place." I feel sure I can do more than that, and make the place pay from year to year. I have no peat meadow, but I can buy as much meadow muck delivered at the barn as two horses can comfortably draw, for a dollar and a half. The first thing I did on commencing operations, was to buy three pigs. The boys picked up the apples as they dropped from the trees, which, with the small potatoes were fed to the pigs, which were kept in a part of the cellar under the small barn, which had a cemented floor. Peat muck and sods from the way side, potato tops, weeds, and leaves from the woods are thrown into the pig pen, but the cow manure is not. The manure from the pig pen is put where it will receive the urine from the cows. In this manner I manufacture a large amount of first class manure, and being under cover none is lost. Here my pigs have a cool place in the summer and a warm one in the winter. The entrance being on the north side, I can give them plenty of sun, or close the doors on very cold days. In addition to apples and potatoes, I feed skim milk and meal. I also buy scraps for them. This food makes excellent pork, and rich manure. I make the production of manure as much an object as any other produce of the farm. Manure is the farmer's raw material; and he has this advantage over other manufacturers, he makes it at his own factory, and the better he makes it the better will be his crops; and the better his crops the better will be his manure. Beef and pork scraps are sometimes used as manure direct, but I prefer putting them through the machine, because it finely divides the particles, and after appropriating enough for its own repairs gives us an article ready for plant food. A judicious use of meadow muck will prevent all odor not only from the hog pen, but from the privy. Mine is made of brick, cemented. In summer, muck is freely used; in winter, coal ashes, and all disagreeable smell is entirely prevented.

My cows are stabled nights during the summer, by which I have in the fall a large amount of manure to haul out on the grass. Last November I drew out twenty-six two-horse loads and spread upon the grass. While doing so, an old farmer came along and said you will lose all the best of your manure; it will run off into the road. Well, I said, let it run. Now he keeps his cows in his barn yard summer nights, where the manure and urine are nearly all dried up before fall, and he throws his manure under his barn eaves, where the rains wash through it fall, winter and spring. In all this he could see no loss, but in spreading manure upon the grass, he thought he could see great loss. But I anticipate very little.

As my pasture is not good, I feed my cows more or less both spring and fall. The sudden change from hay to grass is liable to cause the cows to scour badly and to shrink in flesh and milk. I therefore give them in the spring a feed of hay, nights and mornings, which they eat greedily. The consequence is there is scarcely any change in their droppings, while there is a marked increase in the quantity of milk. In the fall I give them corn stalks, with an evident increase of milk. Hence my experience is in direct op-

position to that of Dr. Loring, who pronounces "green corn stalks the poorest and meanest fodder ever given to a cow." Corn is a rich food; and do not the stalks contain, in a green state, all the materials which constitute the corn? Sweet corn stalks make excellent fodder, after the ear is picked. I pulled mine up by the roots and the cows eat them close to the root. A year ago I had my corn stalks cut close to the ground. I had always disliked the appearance of corn buts on the farm, and knew it took a long time to convert them into plant food. I had them cut up very fine, put into a tub at night and boiling water poured on to them, and let them stand till morning. The taste of the liquid told that there was sugar there, which is good for milk and butter. A little meal was added, and the cows ate it up clean. But I had 'other fall feed. About the first of June I planted about one-eighth of an acre with mangold wurtzels, carrots and ruta bagas, and raised one hundred bushels in all. I had a furrow opened with the plough, into this the manure was put, and where the mangolds were planted, salt was sprinkled on the manure, which was covered up with the hoe. Then a small drill was made with a stick, for the seed; and I had a splendid crop. After the leaves of the mangolds are pretty well grown, the lower ones will fall off and rot, but I had the boys anticipate this and pick them off; also the lower leaves of the ruta bagas. These were fed to the cows, with good results. We estimated that we got almost as large a bulk of fodder as from an equal quantity of land planted to corn; but we did not think they were equal as fodder, but they are a steady supply, for as soon as you have been once over you can begin again, and so continue till frost comes. About the middle of October I began to dig my roots, feeding the tops to the cows, and only dug each day as many as it would be safe to give them. Thus when the roots were all dug, the tops were eaten up clean.

There is danger of "running things into the ground." A persons hears that a certain article is good for a given purpose; at once he uses it exclusively or inconsiderately. Cotton seed meal is great on exciting milk, and some farmers know no limits to its use, and feed cotton seed meal and poor hay to their cows till they have poor animals or none, as the result; others feed roots in the same manner, but perhaps with less injurious results. But feeders ought to use judgment; they should have a purpose in feeding, and adapt means to the desired end. Dr. Loring sells milk, and is great on roots; but he eschews oleaginous substances. These, however, are essential to butter and manure; but for mere quantity of milk they may be less so.

Having talked over the matter we—my wife and myself—concluded to make butter instead of selling the milk. Butter would require good feed; but good feed would make good manure; and good manure would make good grass, which would complete the circuit for good butter again. Then we should have skim milk for pigs and heifer calves, and butter would take little from the land,—its elements coming mainly from the atmosphere. Cows left to themselves will have a mixed diet. We must take nature for our guide.

In winter I go to the barn at half-past five o'clock in the morning, rather sooner perhaps, than a good many would like to go. I give each cow a small handful of hay, and then go to grooming them just the same as I should a horse—first the curry comb, then the corn broom brush, and then the hair brush—keeping them supplied with hay, a small quantity at a time, for about an hour. Then the boy milks. At night we fill a pork barrel with cut hay with which we mix about a half a peck of cotton seed meal, half a peck of corn meal, and half a peck of shorts. Upon this mixture we pour hot water, and cover with an air tight lid. In the morning we pour on more hot water, and after milking this is given to the cows; at eight o'clock they are turned out to water; at noon, when the boys come from school, they are fed with hay, and at four o'clock a little more hay; they are then turned out to water. After which they are fed each a pailful of mangolds, ruta bagas and carrots cut fine; then cleaned and milked, then they have each about two quarts of cotton seed meal, corn meal and shorts—equal quantities of each; upon this boiling water is poured, to which cold water is added enough to fill a pail, with a little salt; after this a little more hay, and they are left for the night.

And now for the result. We sell one hundred and thirty-six quarts of new milk a month; in November we sold fifty-seven pounds of butter; in December we shall sell about the same quantity, besides what we have for family use. This is from two cows and a heifer that was two years old last April, and calved the first of May. One of the cows dropped her calf in May, the other last September. We made butter all last winter, and shall make it all this winter. It pays better to make butter in winter than summer. Churning has never exceeded half an hour, and generally inside of that time. The milk is not scalded, but the cream before churning is brought to a temperature of about sixty degrees. I would say here that my wife was brought up on a New England farm, and that she loves to make butter; but she is satisfied that unless the cows are properly fed she cannot make good butter, and the fact that her butter comes so quick she ascribes to the feeding of the cows, and she thinks it would take more than half an hour to bring butter from Dr. Loring's milk, where the cows are not allowed oleaginous food. A neighbor of mine some little time ago, told me my cows were too fat, and would dry up. A short time after he asked me how my wife got her butter, he

said his wife had churned all day, and after he got home he took hold and churned till ten o'clock, and the butter did not come then. I told him to keep his cows as fat as mine and butter would come in half an hour.

We had green peas by the middle of last June, and new potatoes the last of June. The latter part of July we dug at the rate of a bushel from twelve hills of the early Goodrich. These were manured in the hill with hog manure and a little phosphate of lime. After the peas and potatoes were off we sowed English purple top turnips, from which we raised twenty bushels. We had on the same piece about thirty bushels of potatoes besides peas; and let me say here, that light as this soil is, I have never seen corn roll in the driest of times, when I have seen it suffer on moist, clayey soils. The fact is, the roots can get down deeper into the ground, and the soil absorbs moisture rapidly from the dews, when from the clayey soils it is repelled.

I shall have to put an addition on to my barn this spring. I was just about crowded out last fall. The present barn has supplied the wants of the owners a number of years.

I wish to make another statement, that unless the skin of a cow is kept in a healthy condition she cannot give healthy milk, nor good butter. A healthy skin is indispensable. Through the pores of the skin a large amount of effete matter is thrown off. If these pores are not kept open, this matter is thrown back into the system, and goes off by other secretory vessels, which are as likely to be the milk glands as any others. The skin becomes dry, scaly and itchy, and the cows are continually rubbing and licking themselves. The grooming of the cow remedies this to a great extent; dry feed increases it; oleaginous food tends to increase it; and this might have been the cause of disease in the bags of Dr. Loring's cows. Roots have an excellent effect on the skin of all animals, to which man is no exception. THOS. WHITAKER.

*Needham, Mass., Dec.*, 1869.

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### FARM STOCK IN WINTER---WASTE OF ANIMAL HEAT.

There is no farmer's wife in New England so ignorant of the simple laws of nature as to attempt to bake a loaf of bread with the oven doors open. No thoughtful woman would waste fuel in that way. And yet, are not some of the practices of farmers quite as wasteful? Take for example, the loss of animal heat resulting from insufficient protection of stock in winter. It is well known that in all warm blooded animals, heat is generated by some mysterious process of combustion which is sustained by the food consumed, and in its absence, by the adipose or fatty tissue of the body. When the temperature of the atmosphere is lower than that of the body, heat radiates or passes off constantly. If the air is very cold, the radiation of heat is very rapid, and unless the supply of heat is kept up, the temperature of the body would soon correspond with that of the air. It is very clear, then—the quantity of heat-producing food necessary to maintain an uniform temperature of the body being in exact proportion to the loss of heat by its passing off in the air, —that a much larger quantity of such food is necessary when the animal is exposed to extreme cold than if it is well protected. It is the fuel which, burning night and day, keeps the creature warm. We do not say this as anything new. On the contrary it is well known to every farmer. The only thing peculiar or strange in the matter is that the practice of so many farmers should exhibit a striking indifference on the subject. Many neglect to furnish warm quarters for their stock, and others who have comfortable barns and stables, keep stock all or a part of the time "out in the cold."

We once knew a farmer in comfortable circumstances, of such general good intelligence that he was chosen to represent the town in the "General Assembly" for several years in succession, who gave his sheep no protection whatever, not even an open shed, in winter, because they were "supplied by nature with a fleece to keep them warm." On another farm, one of the best in Windsor county, we have seen milch cows lying on ice and snow in a barnyard much exposed to wind, without even a little straw to lie upon on winter nights, when the mercury ranged from ten to twenty degrees below zero, when a warm stable stood vacant.

We desire especially to have it understood that we do not advocate the system of constant housing in close quarters, deprived of exercise in the open air, which, with high feed, is destroying the constitution of so many herds and flocks of breeding animals. Nothing can be more odious to the friend of improvement in stock than this pernicious system. There is a proper medium course between the two extremes. The loss resulting from undue exposure to cold is three fold. Extra keeping is necessary to maintain the condition—here is a loss of forage. With warm quarters there would be a gain of flesh instead of loss, without extra feed—here is a loss of condition. Constant suffering from cold exhausts and enfeebles the nervous system, upon which depend the healthful performance of all the functions of the body—here is a loss of health.

If there is some special drain upon the system, such as the labor of horses or the production of milk by cows, which requires extra food, the necessity for protection from cold is much greater, for the animal heat must be sustained first. If that requires nearly all the food, the remainder will be insufficient for work on milk, which must be made up out of the stores in the body.

Without alluding in specific terms to every detail to be attended to, we desire to urge farmers not to try to bake their bread with the oven door open.—*Vt. Record and Farmer.*

## HOOVE IN CATTLE.

I lost two cows in one day by eating green clover, and one at another time. I then knew no remedy or cure. My cows having been turned into the pasture one morning earlier than usual, while the dew was yet on the clover, I was notified that one of them was sick. I went immediately to her—found her much swollen—her breathing was quite difficult, and it was with much exertion I could keep her on her feet; she was disposed to lay down. At a short distance, on the adjoining farm, was a German, tying up grapes, having under his arm a bundle of long rye-straw, which he used for that purpose. Seeing me trying to drive the cow, and suspecting what was the matter, he came running over, saying: "your cow eat too much clover—me cure her for you." He then took a wisp of straw, saturated the middle of the straw in fresh cow manure, put it in the cow's mouth, tying the ends together over her head, back of her horns; he then bid me take a position so that we might punch her in the flanks on both sides at the same time. The cow made an effort to get the straw out of her mouth, by opening it very wide, and running out her tongue, as though it was not very palatable. Her mouth being open and tongue in motion, whilst we punched, the gas escaped at every punch, and in less than thirty minutes she was entirely relieved. I afterwards had occasion to resort to this remedy, and always found it infallible.—*Southern Cultivator.*

## MILK UNDER THE MICROSCOPE.

M. V. Essling, in a foreign medical journal, reports some very curious facts which he has ascertained as the result of microscopic experiments with milk. He states that if the surface of fresh cream be examined under the lens, there will be found, amid myriads of milky and fatty globules, a large number of either round or oblong corpuscles, sometimes accompanied with finely clotted matter, being just what is seen in most substances in a state of decay. He finds that these disagreeable looking corpuscles make their appearance in summer within fifteen or twenty hours after milking, and in winter after the lapse of two or three days. Continuing the observation until coagulation took place, the corpuscles were found to increase in number, bud, form ramified chains, and at length to transform themselves into regular mushrooms or filaments composed of cells placed end to end in simple series, and supported at their ends with a spherical knot filled with granulous matter. M. Essling is of the opinion that these formations may be classified among the ascophora, and to this state of the milk may often be attributed the gastric difficulties which affect children. The *Journal* adds: "All this must be very unpleasant for people in the country whose misfortune it is to get pure milk and cream, but to city folks, whose milk is a more artificial composition, it does not so much matter."—*Utica Herald.*

A Cheap Ice House.—"A year or two ago I had my attention called to an ice house built by a farmer near me, which was simply a bin, made with rough boards, sixteen feet square and roofed over, leaving a large opening at the front and sides. He said his ice kept perfectly until the next winter. He put on a layer of sawdust, about a foot thick, on the ground, and then stacked the ice snugly in the center, eighteen or twenty inches from the walls, and then filled in with sawdust, and up over the top a foot or more thick.

"Last winter, before filling my ice house, I determined to try his method. I accordingly tore out all the inside wall, and shoveled out the sawdust; then filled by stacking it snugly in the center, fifteen to twenty inches from the wall. This space I filled in with pine sawdust, and covered the whole over the top a foot thick or more. I left out the window and took down my door and left it all open, so that the sun can shine in there every day. Now for results. At the present time I have an abundance of ice, and the cakes seem to come out as square and perfect as when they went in, seemingly nothing lacking except what is used out. I am satisfied 'how to build an ice house.'"—*Cor. N. Y. Farmers' Club.*

The Use of Salt.—The use of salt as a fertilizer is not nearly as much considered as we think its value demands. It might be applied every third or fourth year. It is the usual practice to scatter the salt broadcast, at the rate of four or five bushels to the acre, after the grain has been put in. Many farmers who have used it in this manner, have given their testimony that their crop of wheat has been greatly increased, and the crop of weeds, bugs and worms correspondingly diminished. If this is so, it is evident that salt performs two important offices, while ordinary manure performs but one. Many of our readers, doubtless, have a small pasture in which they keep a cow and occasionally turn a horse. Many of these pastures have coarse grasses growing in them, while in other places the grass dries up quickly on approach of warm and dry weather. All such pastures will be greatly improved, and often the coarse grasses will entirely disappear if a harrow is passed freely over back and forth during this month, and salt at the rate of eight or ten bushels to the acre be spread over the ground. —*Germantown Telegraph.*

## CONVENIENT DAIRY BARNS.

The following is the article we alluded to in connection with the illustrations of a dairy barn on page 100:—

The modern barn in Herkimer and Oneida counties, N. Y., are roomy and arranged, if possible, so that one structure will meet all the wants of the farm. This is easily done when a side hill and running water are convenient to the farm-house. In such cases the stables for milking in summer are those in which the cows are kept in winter. This arrangement saves the cost of a special building, or "milk-barn," as it is termed.

There is great difference of opinion in regard to whether manure cellars under the stable, are injurious or otherwise. Many barns in Herkimer, Oneida and the central counties of New York are constructed with these cellars under the stables, and in no instance where they have been properly ventilated and absorbents used for taking up the liquid manure, have we heard of any bad effect on account of the manures, &c. The stock are quite as healthy, and appear as thrifty, at all seasons, as in barns without manure cellars. We have examined manure cellars, under stables, at different seasons of the year. Some of them were badly ventilated and were fowl with gases emanating from the decomposing excrement which had been dumped without absorbents. Such a condition of things must be a source of disease and cannot be recommended. In others, where ventilation had been secured, and absorbents, such as muck, dry earth, or sawdust, freely used, the atmosphere was comparatively pure and free from any disagreeable odor. Generally, those who have manure cellars under the stable are pleased with them. They save a great deal of labor in the course of a year, and with the precautions we have named, as regards ventilation, &c., they have not been found to be objectionable by the majority of dairymen who have them in use. Leaving this question, for the present, to be decided by those contemplating building, it will suffice, perhaps, to give the general outlines of a class of barns now being erected in the dairy districts of Central New York, which are found to be convenient and give satisfaction.

Our description is that of a barn in Trenton, Oneida county, belonging to W. W. Wheeler. It has capactity for fifty cows, and has a manure cellar under the stables. The basement for manures may be converted into stables for the cows if desired. The barn stands on a side-hill, and is one hundred feet long by forty feet wide, and has a stone basement nine feet high. The bottom of this basement, which is used for manures, is paved with cobble stones, pounded down in the earth, and then cemented with water, lime and sand, in proportion of one-tenth lime to nine-tenths sand. This forms a perfectly tight bottom, and is the receptacle for all liquid and solid excrement from stock in the stables above.

The basement is well lighted and ventilated, and teams can be driven through the central alley for removing manures. Muck and dry earth are hauled into the central alley and used from time to time as an absorbent, and when mingled with the liquid and solid excrement a large quantity of fertilizing material is made. The stables are eleven feet wide, and the cows are fed from the central alley, which is fourteen feet wide. The cows stand four feet apart, and are fastened with double chains two feet long, attached to a ring sliding on a post. Between each cow there is a plank partition extending into the central alley the width of the feed box and back into the stable some two feet. This plan gives the cows more liberty and ease of position than stanchions, and many prefer these fastenings to stanchions on this account. Back of the cows and along the outside of the stables, the floor is raised some five inches higher than the drop, back of where the cows stand, and there is an open space between the two floors, where the manures are pushed into the cellar below. The stables are well lighted and ventilated.

Above the cows are the drive-floor and bays, where the teams deposit the hay and fodder. The loads come in at one end and go out at the side at the other end, so that several teams can be in the barn, and the work of unloading go on at the same time, and not interfere with each other. The posts above the cows are sixteen feet in height. On one side of the barn are the horse stables and carriage-house, communicating with the upper floor, and all arranged in the most perfect manner as to granary and the means of dropping hay for feeding horses and the cattle below. In the upper loft over the drive-way a flooring is arranged with open spaces, where a considerable quantity of corn in the stalk may be taken up and preserved until such time as there shall be leisure for husking.

The leading feature of barns now being built in the dairy region, is to have the drive-floor and bays above the stables. Where the site is suitable, some prefer to have the drive-way near the peak, or top of the barn. The hay may then be rolled from the load on either side into the bays. In feeding—the stables being below—the fodder is thrown downward, either through openings arranged in the bays or in the central alley, according to the manner in which the cows are placed in the stable. —*X. A. Willard, in Rural New Yorker.*

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WEN REMEDY.—O. W. More writes to the *Rural New Yorker* that the following prescription will cure a wen in most cases, if applied early and faithfully. Take a bottle with a large neck, fill with balm of Gilead buds, (say one pint,) put in enough of the best of alcohol to cover the buds; let it stand

in a warm place two or three days, shaking it often. When the gum is thoroughly mixed with the alcohol, apply two or three times per day with a swab. Continue until the bunch softens; then it may be opened; then apply for a few days, and the wen will be thoroughly and permanently cured. I know it, for I have proved it. The buds gathered in the early spring are best.

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*For the New England Farmer.*

## VETERINARY MEDICINE AND SURGERY.---No. 1.

I have been a practitioner of medicine and surgery during a period of nearly forty years; and although it has been my daily business to prescribe for diseases and injuries as they have afflicted *human bipeds*, I have not been indifferent to the manner in which those things are usually managed when they occur in connection with *brute quadrupeds*. The result of my observations in this direction are a strong interest in the subject of Veterinary Medicine and Surgery, and an earnest wish that the Society for the Prevention of Cruelty to Animals may, at an early day, give due attention to the numberless and senseless barbarities practiced upon the inferior animals, by the multitude of *ignoramuses*, called "horse doctors," "cattle doctors," &c.

There are within the boundaries of the United States, thirty or more medical schools in which Human Anatomy, and Physiology, Surgery, Pathology, Materia Medica, Theory and Practice of Medicine, Obstretrics, Chemistry, Botany, &c., are taught by competent instructors. To enter these schools, a good moral character, and a proper preparatory education are required; and to graduate from them a tolerably thorough knowledge of the subjects taught is demanded. Most of these schools are filled from year to year with young men eager to push their way into a profession already crowded with numbers, and in which but few succeed in doing more than to "get a living." Yet, here is a department of the healing art—a branch of medical and surgical science—an honorable and lucrative profession—which has been, and is now, almost entirely neglected!

To remedy this evil, and induce young men of education and character to enter this hitherto neglected profession, a few well conducted schools should be established at convenient and well selected points, in which should be taught all the branches of science that are taught in our best medical schools—substituting *Comparative* Anatomy and Physiology for *Human*. In connection with these school or colleges, commodious and properly arranged hospitals should be erected for the treatment of diseased and wounded animals; and in them clinical lecture should be given, daily, before the students, as is the case in the Boston, New York, and Philadelphia hospitals.

I am glad to know that a beginning has already been made in this direction—that one or two veterinary schools, worthy of the name, have been established, within a few years, and that in some of our larger cities, a few men may be found who know something about the structure of that noble animal, the horse; and of the nature, causes, and proper treatment of the diseases to which he is liable. But alas, how few are thus qualified! I positively aver that during the thirty-eight years of my professional life I have not seen one! Plenty of "horse doctors," "cattle doctors," &c., may be found, it is true,—one, two or more in nearly every town; but, so far as my knowledge of them extends, they are about as ignorant of those things which a doctor should know, as a horse or an ox is supposed to be of *algebra!*

MEDICUS.

*Brattleboro', Vt.*, 1869.

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ENGLISH SHEEP.—The advantages of English sheep are their prolificacy in breeding, their good quality as nurses, their early maturity, their profitableness for mutton, and, at present, their profitableness for wool. Their disadvantages are their incapacity to resist hardships, their poor herding qualities, their want of longevity, and their tendency to disease under mismanagement. By longevity we do not mean merely length of *life*. Their wool degenerates in quality and quantity, and they begin to "go down hill," by the time the Merino has reached its meridian; and the latter keeps up to that meridian for several years. In respect to disease, they but exhibit the tendency of all highly artificial and highly forced domestic animals. All such must be peculiarly subject to maladies, especially inflammatory maladies, when every proper physical condition is not maintained.—*Dr. Randall in Rural New Yorker.*

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BARNSTABLE CO., MASS., AGRICULTURAL SOCIETY.—At the annual meeting of this Society, holden in Barnstable, December 14, the following officers were elected:—

President—Charles C. Bearse; Vice Presidents—Levi L. Goodspeed, Matthias Hinckley; Secretary—C. F. Swift; Treasurer — Walter Chipman; Executive Committee—Luther Hinckley, Amos Otis, Isaac Whelden, Thomas Arey, M. W. Nickerson, E. T. Cobb, S. B. Phinney, H. Goodspeed, Jos. R. Hall, J. C. Mayo, J. S. Parker, Wilson Ryder, Zenas Doty. Delegate to the Board of Agriculture in place of Hon. Geo. A. King, when his term expires—S. B. Phinney; Committee on Hall and Grounds—Ansel D. Lothrop, James Otis, Gorham Hallett; Auditing Committee—F. G. Kelley, Elijah Lewis, 2d, Chauncy Conant; Committee of Arrangements—Walter Chipman, F. B. Goss, Jos. M. Day, E. N. Winslow, Nathaniel Hinckley.

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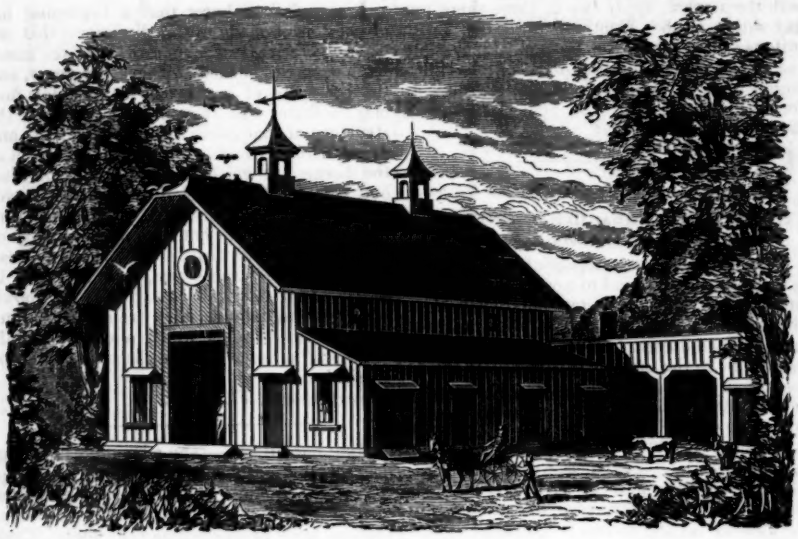
—Twenty-five pairs of large oxen have been sold in the vicinity of Charleston, Vt., recently to go to the lumbering swamps in other States.



BARN FOR A DAIRY FARM.

DESIGNED AND ENGRAVED EXPRESSLY FOR THE NEW ENGLAND FARMER.

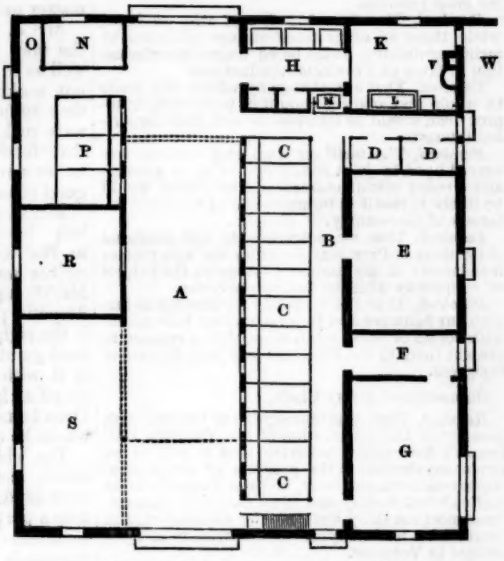
The manufacture of cheese to a very large, and of butter to a smaller extent, in factories has greatly revolutionized the dairy business within a few years past. This general change in the business necessitates changes in most of its details,—in the breed of cows, in the manner of feeding and managing them, and in the construction of barns for their accommodation. In response to the frequent inquiries which have been made of late for suggestions in respect to the most convenient arrangement of a barn for a dairy farm, we engaged Mr. GEORGE E. HARNEY, formerly of Lynn, Mass., now of Cold Spring, N. Y., to furnish a design which should embrace all the modern improvements which have been suggested by the dairy farmers in New York and elsewhere. Having had his drawings engraved by one of the best artists in the city, we take much pleasure in presenting his plan this month to the readers of the FARMER, with the following brief explanations.

The size of the barn is 40x60 feet, and the shed or lean-to 14x60 feet. The barn floor, or open space, 13 feet wide, with a large door at each end, is indicated on the plan by the letter A. The letter B represents a passage way, 5 feet wide, for the cows to their stanchions or stalls; CCC are the stanchions or stalls, allowing a space of 3 feet 3 inches by 7 feet for each animal; DD, are pens for calves, 4 by 6 and 4 by 7 feet; E, room for storing bedding, 13 feet 6 inches by 18 feet; F, room for small tools, 5 feet 6 inches by 13 feet 6 inches; G, room for farm machinery, 13 feet 6 inches by 18 feet; H, grain room, 8 by 12 feet, with large rat-proof chests and two large closets; K, boiling room, over pig-pens in basement or cellar, 10 by 13 feet; V, chimney and boiler; L, trough for mixing warm fodder, with a dumb waiter leading to the pig-trough below; M, pump and water trough, with an opening between M and L for access to the water from the boiling room; N, bull-pen, with a place for fodder at O; P, horse stalls; R, room for roots, or for hay in connection with S, bay for hay. The position in the plan of the open shed shown in the perspective is indicated by W. The dotted lines are intended to show the extent of the end scaffolds. The arrangements of the other parts of the barn, including the cellar, are left to the taste of each builder.

Here, then, you have a plan and a view of

a dairy barn. How do you like it? We do not claim that is perfect, nor that it will suit every dairy farmer. If it were possible, we should almost be sorry to give a plan that nobody could criticise; one in which no one could suggest an improvement, or point out a fault.

With the present price of lumber and of labor, the building of a barn is a more serious matter than it was when most of our present structures were "raised." Consequently it is desirable to plan with reference to the greatest economy of space, of comfort to the animals, and of convenience in storing and feeding the hay and provender on which they subsist. Let the matter be talked over these winter evenings at home and in the club, and if the above plan is not the best, let us have a better one.




In this connection we publish on page 98 some remarks on the construction of barns in the great dairy districts of New York, by Hon. X. A. Willard, a gentleman who has probably visited more dairy establishments, and more factories, both in this country and Europe, than any other man now living.

## NICE BUTTER.

If the productions of the sculptor and of the worker in wax belong to the fine arts, where shall we class the butter now on our table from the dairy of our correspondent Thos. Whitaker of "poor" Needham? Who made it? Who gave it this pleasant odor, this rich color? It will be remembered that in one of his late articles he said that he and his wife had discussed the question whether the character of butter was decided by the man in the barn or by the woman in the dairy. Though not employed as umpire, we hope that the expression of a well settled conviction that no such gilt-edged butter as this can be made unless both barn and dairy are well managed, will tend to keep peace in the family, and suggest to farmers that if they wish their butter to come quick, with a good flavor and fine appearance, such as will find a ready sale, they have something to do besides scold their wives. Many a dairy woman is required to perform a harder task than were the Egyptian slaves who were ordered to "make brick without straw." Whitaker and wife will therefore accept our thanks for their kind remembrance.

In this connection we are requested by Mr. W. to say that there was a mistake in his statement last week of the morning mess for his three cows. It should read half a peck of cotton-seed meal, two quarts of corn meal—instead of half a peck, as printed—and half a peck of shorts. In his description of the mess for the evening the word "each" was intended to apply not to the cows but to the quantities of meal and shorts; that is, he prepares near night a mixture consisting of two quarts of corn meal and two quarts of shorts, for the three cows, and not for "each" cow, as some might understand him to say.

## VERMONT STATE AG'L SOCIETY.

In addition to the account given last week of the annual meeting of this Society, we publish the resolutions adopted by the meeting, and the names of the Board of Directors. The committee on resolutions consisted of Hon. John Gregory, Hon. Joseph W. Colburn and Hon. Edwin Hammond. Mr. Hammond was also chosen to represent the Vermont State Agricultural Society and Wool Growers' Association in the Executive Committee of the National Wool Growers' Association.

### Resolutions.

*Whereas*, The renewal of the Reciprocity Treaty, so called, with the British Provinces, admitting *free of duty* their products, is expected to come before the present Congress; therefore,

*Resolved*, That the Vermont State Agricultural Society and Wool Growers' Association trust Congress will refuse to re-enact said treaty, as it would cripple our industry, and bring us in close competition with those exempt from the burden of taxa-

tion which we cheerfully sustain as an incident to the great rebellion.

*Resolved*, That the admission of said products, while those of other countries are excluded by tariff regulations, would be an unjust discrimination in favor of Provincial productions.

*Resolved*, That any change by which free trade in wools and woolens should be permitted, or approached, would be injurious to both these important interests.

*Resolved*, The tariff on wool and woolens was agreed upon in joint convention of wool growers and woolen manufacturers, and its repeal would be likely to result in injury to the agricultural interests of the country.

*Resolved*, That we acknowledge our profound obligations to President Grant for the wise recommendations in his annual message on the subject of reciprocity with the British provinces.

*Resolved*, That the Secretary be directed to furnish our Senators and Representatives in Congress with copies of these resolutions, with a request to present them to the President and both Houses of Congress.

On motion of Henry Clark,

*Resolved*, That this Society have learned with pleasure of the organization of the Vermont Dairyman's Association, believing that it will be an important element in the progress of agricultural improvement in our State, and the Vermont State Agricultural Society and Wool Grower's Associations most cordially welcome the Association, and commend it to the support of the friends of agriculture in Vermont.

On motion of C. Horace Hubbard,

*Resolved*, That the granting of a charter to the Vermont Horse Stock Company for the improvement of the horses of Vermont, is a move in the right direction, and we would commend the same to the farmers of the State.

*Board of Directors.*—Edwin Hammond, Middlebury; John Gregory, Northfield; Elijah Cleaveland, Coventry; Geo. Campbell, Westminster; Henry Hayward, Rutland; Noah B. Safford, White River Junction; Henry B. Kent, Dorset; Lawrence Brainard, Jr., St. Albans; David Goodell, Brattleboro'; Edwin S. Stowell, Cornwall; James A. Shedd, Burlington; Henry Chase, Lyndon; Geo. A. Merrill, Rutland; C. Horace Hubbard, Springfield; S. G. Holyoke, St. Albans; Lemuel S. Drew, Burlington.

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*For the New England Farmer.*

## FARM HELP.

Whether Mr. Jameson, in his reply in the FARMER of Dec. 25, has fairly answered my objections to what I regarded as his gross misrepresentations of foreign and native help, your readers can judge better, perhaps, than myself. He reiterates not simply his belief, but his positive knowledge, that "most of the foreign population employed among us are not qualified to take charge of a farm," &c. Admitting this to be true, does it prove his former assumption that all such are "unskilled laborers." In every branch of business we find men of great skill and proficiency as workmen—men of good steady habits, valuable citizens and neighbors, who do not possess that tact and taste which qualify them for taking full charge of any business. To urge this as an objection to foreigners, when probably Mr. J. would admit that many home bred farmers' sons are equally deficient, is to treat the matter unfairly.

Mr. J. says that I am probably aware that the men in England who manage farms so well as to pay from $10 to $20 an acre rent are not seeking work in this country. I admit they do not, and alluded to the fact that there were such farmers in the old country, to show that foreign laborers who are brought up under a superior system of farming have a good chance of becoming skilled workmen.

Mr. J. objects to hiring Scotch and Irish help, because they do not spend their money in the town in which it is earned. This strikes me as illiberal in the extreme. Does Mr. J. suppose that we are living under some despotic power? Does he not know that it is the right of every son of toil to spend his hard gained earnings where he pleases? How is it with Mr. Jameson himself? Does he spend all his earnings in the town of Irasburg? Does he not, like other men, spend his money where he can make the most of it?

The charge made by Mr. J. in his first letter, and alluded to in his second, that farmers send their sons into the city and hire help a part of the time, I regard as a misrepresentation of the case. I know that there are thousands of fathers and mothers who would gladly have their sons around the domestic hearth, and would do by them what is right and just. But they leave, not because that good mother and worthy father have turned them away. No, sir; their hearts yearn for the presence and company of their children. The fact is that the children of our day have lost that respect for their parents which they ought to have and which children did have forty years ago. Our young men when about sixteen years of age become restless under parental control, imagine they know more than old people, and insist on having their own way. So, after making more or less trouble in the family they leave the old people and go to the city and the factory. From personal observation for many years of the career of such young men, I know that hundreds of them fall into temptation and are ruined. I think it unjust to charge farmers with driving their sons to the city.

As to Mr. Jameson's insinuation that Scotchmen have no regard for the comfort of their wives, I have patience only to ask him to compare the frequency of divorce in Scotland and in Vermont. I wish he could give expression to his views without such ungentlemanly flings and misrepresentations of any class of his fellow citizens.

It gives me much pleasure to close this article with an expression of perfect agreement with Mr. Jameson on one subject,—that of having a farm house for the laborer and his family. Such is the practice in Europe, but I almost wonder that he should approve of it.

D. M. H.

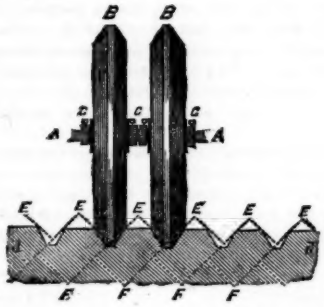
*East Canaan, N. H., Dec.* 26, 1869.

*For the New England Farmer.*

## WHEAT CULTURE IN ENGLAND.

Dibbling—Drilling—Pressing—Rolling—Treading—Depth of Ploughing—Amount of Seed per Acre—Rotation of Crops—Seeding down Clay Land—Value of Straw, Roots, &c.—Winter Management of Stock and Manure.

In a previous article on the cultivation of wheat, I spoke of "pressing after the drill." I did not mean simply pressing with an ordinary roller, but by the use of an implement known in England as the Presser-roller. As this may be something new to most of the readers of the NEW ENGLAND FARMER, I send you a drawing of a part of the machine which will perhaps sufficiently illustrate the operation.




The cut presents a view of two pressing wheels detached from the carriage and shafts, in which *AA* is the axle, *BB* are the two pressing wheels as they appear edgeways, their diameter being about two feet six inches, weighing some 200 pounds each. The sole of the wheel is about two inches wide. The pressing wheels are held at the required distance by the square collars *CCC; dd* represents a tranverse section of the ground undergoing the pressing process; the shaded part of the section exhibits the furrows of a soft loose soil, and the dotted lines *EF, EF*, that of the newly ploughed land undergoing the operation of consolidation. The ruts left by the presser for the seed, is shown at the right, and are three inches deep by two wide at bottom. The presser follows two ploughs and the wheels run in the seams of the furrows. The land at the left, at *d*, is unploughed, and on this runs a light wheel which supports the frame or carriage of the machine. The shafts by which it is drawn are also placed on the left side of the frame, so that the horse walks on the unploughed land. Sometimes, however, four or six press wheels are used, or as many as there are drills in the machine which deposits the grain. In which case the side wheel that runs on the unploughed land is dispensed with.

This mode of cultivation is applicable only to the drill system, and is adopted only in cases where the soil is too loose and friable for the healthy and continued growth of the wheat plant, as in case of a heavy clover lea, &c. I once worked for a farmer on the Yorkshire wolds where the soil is very shallow; the solid chalk rock lying only sixteen to twenty inches below the surface. On this land, with ordinary cultivation, the wheat suffered greatly by being forced out of the ground by the frosts of winter. To remedy this my employer set to work and got eight cast iron wheels made, and gauged them to correspond exactly with the distance of the coulters of his drills. Including the frame, this presser-roller weighed nearly a ton, but to make it still heavier, he put two four-bushel bags of wheat on to it. The presser was drawn by two horses and followed in the track of the seed drill, and pressed in the wheat very firmly. The result was, at the following harvest, some of the best wheat crops that were grown in that neighborhood, for a circle of many miles.

Before the introduction of machines for drilling in the wheat, dibbling was extensively practiced. By the use of this implement a firm seed-bed for the wheat was secured, similar to that obtained by the Presser-roller. The dibble is an instrument three feet long, all iron, excepting the handle, and weighs six pounds. The dibbler walks backwards with a dibble in each hand, giving a slight twist with the wrist at the moment of plunging the iron into the ground, which makes a hole that does not again fill up by the crumbling in of the earth. The holes were made four inches apart, and the rows about four and a half inches. The seed is dropped into the holes by children who place one, two, or three seeds into each hole. The holes are filled by a rake or a harrow with a few bushes woven into it. A good dibbler with three active attendants will plant about half an acre a day. This tedious process has been mostly superseded by the modern drill, with which the desired solidity of the soil is secured by the use of the ordinary land roller.

As another illustration of the benefits of consolidating the soil of wheat fields, I will mention an incident that I remember. A field had been seeded to wheat and finished off in the nicest English style. A party of sportsmen with a pack of fifty-two hounds rode over this field back and forth, to head off the foxes which the dogs were chasing in an adjacent thicket of broom and winns, pressing the ground quite solid in places. Without guessing what effect such treatment of his wheat field would have on a Yankee farmer, I may say that it provoked the English owner to rougher words than I care to repeat. At harvest, however, the yield on the most closely trodden part of the field proved to be the best and the heaviest.

I greatly prefer drilling to broadcast sowing. But where the land is in such a condition that we cannot use the drill-machine, we must resort to broadcast sowing. Among the disadvantages of broadcast sowing are the differ-

ent depths at which the seed is buried in the ground. This varies all the way from nothing at all to four inches. Consequently the plants come up at different times, and the straw grows to different heights. This cannot probably be obviated entirely under any system of cultivation, but I think the seed is put into the ground at more equal depths by drilling than by any other mode.

But for the purpose of giving an idea of the present mode of cultivation, I will copy a part of a letter I received last spring from a friend in England. He says:—

"I plough my land five or six inches deep for wheat, then roll it with an iron roller to make it solid, harrow well, and drill with a seven-coulter drill, which I prefer to a presser-roller. We cultivate about here under the fourth and fifth course system. First, I summer fallow, and in June sow with turnips, Swedes generally; feed some off with sheep, and pull others to feed at home. This crop gets well manured. Second, the following spring, drill with barley, and seed down with clover. Third, summer-feed this with sheep and cattle. Fourth, plough and drill with wheat in October. After wheat sow with oats, which are generally sown broadcast. I drill 1½ bushels of wheat, 2½ of barley, and 4 or 4½ of oats to the acre."

You will see by the above that farmers in England seed heavy. The soil is good, inclined to gravel. They get on an average from thirty-six to forty bushels of wheat per acre. You will see by the mode of management they keep the land in good condition, and get wheat as well as straw. I think that this mode of farming might be adopted in this country to advantage where drills can be used.

On clay or moist land a somewhat similar course of rotation is adopted. On their summer fallows and clover leas, from two and a half to three cauldrons of lime per acre are applied. On such land they seed down with wheat, which is hand-hoed in the spring; the grass seed being sown and the land rolled when the wheat is two or three inches high.

From your editorial remarks on the amount of straw raised, I infer that you place a lower estimate on it than I do. The straw from an acre seeded with a peck or less of seed must be small,—very much smaller than where six or eight pecks were used. I must believe that if the farmers of this country would adopt a judicious course of rotation, raise more roots, more grain and more straw and feed them to their stock, it would be better for them and for their land. I think, too, that barley might be substituted in a measure for corn to advantage and profit. Barley is grown with less labor, and the land put in grass a year sooner.

Although I have made a long article I do not like to close without an allusion to the

### English Mode of Making Manure.

Their barns and sheds are generally arranged so as to form a hollow square, which they call a fold-yard. In these yards their young stock and other cattle are fed on straw during the winter, from racks built for that purpose. What straw is not eaten by the cattle goes under foot and receives the dung and urine until it becomes two or three feet thick; the manure that is made in the stables by horses, cows and fat stock, is likewise thrown into this yard. During the winter and spring this manure is drawn upon the turnip fields. The dry and fresh straw on the top of the manure in the yard is raked or forked off, as the manure is loaded, and then is thrown back upon the bottom of the yard, to start another bed of manure. After it is deposited in the field it is turned over, taking care to work the outside into the middle. Such manure is more valuable in my estimation than that from stables here. In such yards cattle pass the English winters very comfortably; but the weather there is more uniform and less severe than here.

I have thus given you some of my recollections of farming in the old country. Sometimes I think farmers in this country would do well to adopt some of the practices which have been found to work well there, but our circumstances are different in many respects, and I am perfectly willing that others should do as they like. E. HEBB.

*Jeffersonville, Vt., Dec.*, 1869.

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*For the New England Farmer.*

## VALUE OF GREEN CORN-STALKS.

**Green Corn-stalks, the Poorest and Meanest Fodder ever given to a Cow.**—*Report of Dr. Loring's Pittsfield Speech.*

Such a sweeping condemnation of an article so generally used, coming from one so deservedly popular as a teacher upon agricultural topics, will naturally arrest attention and incite investigation. If corn stalks *are* worthless for fodder, the thousands who annually raise them ought to know it, but if they really have an intrinsic value it may be well for those who advocate their use to show their reasons.

For one, I believe, the main objections urged against this fodder arise entirely from the manner of cultivating and using it. In order to derive the greatest benefit from this crop, it is necessary to understand the office and nature of the stalk and its value at different stages of its growth. In its early growth the stalk is composed mostly of soft, cellular tissue, and the juice is watery and insipid. As the stalk approaches maturity, the juice thickens and is richer in saccharine matter, and when stalk and leaves are fully developed and the ear is forming, the juice is the richest, and the stalk has its greatest value. The development of the ear withdraws the juices from the stalk and leaves, and when it is fully ripened they pos-

sess little nutritive value, become tough and hard and are more suitable for beds and bedding and making paper than for even the fourfold stomach of the ox or sheep. Thus the office of both stalk and leaf is to support and perfect the ear or grain, and their value varies with the growth of the plant.

Where the practice of planting corn for fodder is to sow thickly in drills which have been well filled with the strongest kind of manure, a rapid, rank growth of partially developed stalks is produced, as the pale green, sickly yellow, or blanched appearance of a large part of the fodder is ample evidence. There is no room for full development. Cut this when half or two-thirds grown and you have an imperfect stalk at its most valueless period. A large bulk may be produced, but the juices are watery and insipid—not nutritious. It is better calculated to allay thirst than to satisfy hunger. It is no wonder the butter-maker is disappointed, and the milkman fears his customers will grumble.

The large, coarse and late varieties of corn make the poorest fodder; for they must be planted more closely and cut earlier than smaller kinds to have it eaten at all—consequently the stalks are furthest from maturity. It is probably from using fodder grown in this way that disappointment arises and the cry of condemnation is heard. Would there were more milk-producers who take pride in having a good article and giving their customers an equivalent for their money.

Now, it must be conceded that bulk in growing fodder is no consideration unless there is a corresponding amount of nutrition; quality, rather than quantity, is the main thing to be attained. An innutritious, bulky fodder unduly distends the stomach, and the labor of the digestive organs is greatly increased; their power is weakened thereby, and the food will be imperfectly digested. If the smaller varities are planted thinly in the drill, giving each stock room and time to attain its natural size, or nearly so, and to produce an ear, and is cut while the ear is forming, the stalk will be in its greatest perfection and the fodder worth raising—its deep, rich, luxuriant green will betoken a healthy growth, and both stalk and leaf be full of the sweet juices which go to form the grain; one stalk is worth three of the large Western or Southern varieties but half matured. This fodder will produce cream as well as milk. It is good for oxen and sheep, and horses eat it readily and thrive upon it. For several years I have used sweet corn and find it far superior to the common yellow; it is excellent for fattening animals, and I have fed it to working horses with satisfactory results.

Corn fodder is just what we make it. If we plant so thickly that the stalk cannot be well matured and cut before it has attained its maximum goodness,—getting only a poor, watery article,—it is surely no fault of the corn. If well planted and allowed to remain until the ear or grain and the weather have extracted all the goodness, we have only a hard, tough and indigestible stover. While if managed rightly, all the virtue of the grain may be retained in the stalk and leaves, and the whole form a palatable and nutritious food. Precisely the rules that are followed in raising other grains for fodder are applicable to corn. Any farmer of experience in sowing rye, oats or barley for that purpose would sow thinly and cut while in the milk, for he knows full well if seeded so thickly the stalks could not head out, and the result, though bulky, would be a poor, trashy stuff.

Complete success, however, cannot be attained without attention to something more than the proper quantity of seed and right time of cutting. It requires a good soil, in fine tilth, with a liberal supply of manure, part of which has been ploughed or harrowed in. In short, the cultivation should be so thorough that a good crop can be secured in an unfavorable season, for it is needed most when hay and pasture are failing.

Taking all things into consideration, green corn is the best thing yet offered for soiling or supplying a deficiency in pasturage. Its easy cultivation, almost certainty of a large yield, small expense, and the fact that it imparts no objectionable flavor to the milk or flesh of animals, all commend it. Moreover, what is not wanted in a green state can be cured and fed dry with profit in the winter. We must, therefore, advocate its use, although, occasionally, we hear denunciations against it.

*Lawrence, Mass., Dec.* 27, 1869. N. S. T.

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## MANAGEMENT OF FARMERS' CLUBS.

I will tell you how I think a Farmers' Club should be managed, or rather how its exercises should be conducted. My method may not be the best—perhaps I am wide of the mark; still I speak from conclusions drawn from a connection with one for several years.

The rules and regulations by which the members are governed should be few and simple. In general it will be found that an assemblage of farmers, unused as they are to public speaking, will talk more freely and more willingly, if left unhampered by parliamentary rules. The more at ease the members feel, the less they have to try to do the thing right, the more active they will become in their membership, the more interested they will be in the meeting, for they will feel that they can do it right as well as anybody. When they feel thus at ease they can talk and act unembarrassed, and the Club will get at their best thoughts and ideas.

If the number of members is not too large the best place for the meetings is at the houses of the members. Under this arrangement, in addition to the information derived from each other, and the interest in farm life awakened, there will be fraternal feelings

cultivated—neighborly good will encouraged. It will be a sort of farmers' lodge, where all meet on the same level—no one feeling himself better than his neighbor.

Familiar farm topics should be selected for *discussion* and not for *debate*. One or two members should be appointed to open the discussion. If the person appointed is accustomed to putting his thoughts in writing, an elaborate essay can be prepared and read. If this would not be agreeable he can arrange in his mind what he wishes to say and present it by word of mouth. A train of ideas will thus be started which will be taken up by others, who will give their opinions, relate their experiences and the conclusions derived therefrom, always confining themselves as closely as possible to the subject under discussion. The aim should be, in addition to the interest created, to draw out facts, opinions, conclusions, practices, and results. Clubs make a great mistake when they conduct their exercises after the manner of a debating society. If there are those among your number who wish to diaplay their forensic powers, an opportunity may occasionally be given and a subject relating to the farm be selected and arguments presented pro and con, ever bearing in mind. however, that it is not the proper way to conduct the exercises of a Farmers' Club.

The Secretary should be directed to keep a journal of the doings of each meeting to be read at the opening of the next meeting.—*Cor. Maine Farmer.*

## EXTRACTS AND REPLIES.

### A COLD CELLAR.

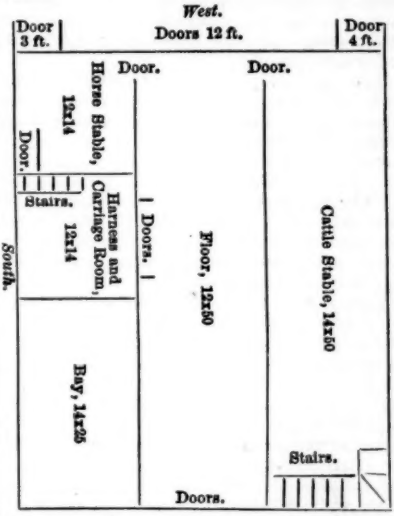
I have a dry, cold, sandy cellar that freezes. Will it do any good to run a half inch stream of water into a tub in the cellar? The water is 38° Fahrenheit, in a shed. A SUBSCRIBER.

*Ascutneyville, Vt., Dec.* 13, 1869.

REMARKS.—We have known water to be carried into a cellar by the pailful to keep out the frost on a severely cold night, and your stream of water, 6° above freezing, we should suppose would help a good deal. But if the under-pinning or the cellar wall is very thin or open, or if the rooms over the cellar are not warmed, such a stream of water may prove insufficient. Is your house banked up? Have you ever tried evergreen boughs for a banking? They are neat, and are said to be effectual. Collars, cuffs, bosoms, and other articles of male and female wear, are now made of paper; and here is what the *Scientific American* says about protecting cellars from frost: A man who had a cellar that persisted in freezing his vegetables, though thoroughly "banked up," went to work and pasted four or five thicknesses of old newspapers—hope he didn't use the NEW ENGLAND FARMER in that way—over the walls and ceiling of his cellar; a curtain of the same material being also pasted over the small low windows at the top of the cellar. The papers were pasted to the bare joists over head, leaving an air space between them and the floor. He reports that the papers carried his roots through last winter, though the cellar was left unbanked, and he is confident they have made the cellar frost-proof. Before putting on the paper, it will be necessary to sweep down the walls thoroughly, and to use a very strong size to hold the paper to the stones. It is not necessary to press the paper down into all the depressions of the wall; every air space beneath it is an additional defence against the cold.

### PLAN OF A BARN.

In reply to your Westport, Conn., correspondent's inquiry I send you the plan of a barn I intend to build next spring. If any one has a better plan for a barn 50x40, I should like to see it before I build.




Size 40x50 feet; posts 18 feet long; rise of roof 15 feet, covered with shingles; body of barn covered with inch boards, clapboarded and painted. The stable for cattle 14 feet wide; floor 12 feet; bay 14 feet; height of cattle stable 7 feet 6 inches; horse stable 8 feet 6 inches; barn floor covered with pine, 1½ inch thick, lined with hemlock one inch thick. Size of timber on lower floor 8x8 inches; all above 7x7 inches. Cellar under the whole 8 ft deep with nine posts in cellar. The barn ends to the west; cellar open to the south. Stairs in one corner of cellar leads to the stable for cattle. I. B. HARTWELL.

*Rochdale, Mass., Dec.* 25, 1869.

### TURNIP TASTE IN MILK AND BUTTER.

What will prevent milk and butter from tasting of turnips when cows are fed with them?

*Waterbury, Vt., Dec.*, 1869. C. B. P.

REMARKS.—We generally feed turnips in the morning soon after the cows are milked, and, of course, after they have had a foddering of hay. They should not be taken on an empty stomach,

but as long before milking as convenient. While eating turnips the cows should be well supplied with salt. Cooking is said to prevent all taste. By adding to, say, half a bushel of boiled turnips, while hot, four or five quarts of shorts, which will be well swelled by the time they are cooled, you will have a very acceptable mess. In a prize essay, written by Mr. William Anderson, of Rockford, Ill., on the cultivation and use of turnips, and published in the *Country Gentleman*, it is said that the turnip taste may be completely neutralized by adding to the milk before it is strained "a *very small* quantity of nitre (saltpetre) dissolved in hot water." He gives no explanation of the amount of nitre to be used, further than the words "very small," and the remark that "the quantity of nitre must necessarily be regulated according to the number of cows kept." Mr. Anderson says he has fed cows all winter on turnips and had no complaint of turnip taste in the butter, from those who used it. We are perhaps prejudiced against saltpetre, but as we don't want much of it in our food, we should use the least possible quantity that would answer the purpose in deodorizing milk. Better taste a little of turnip than too much of nitre, we should say.

### POULTRY ACCOUNT.

I commenced the year 1869 with twenty-five hens. I prefer the Brahmas for chickens, and the Leghorns for eggs. I think a cross better than pure breeds of either blood. In reply to the question often put to me, "Is there any profit in poultry?" I offer the following account current which I have kept with my little flock during the year past:—

| 1869. | HENS, | *Dr.* | |
|---|---|---|---|
| Jan. 1. | To value of 25 hens . . . . . | $25 00 | |
| | To food for hens and chickens | 80.90 | |
| | | | $105.90 |
| 1869. | HENS, | *Cr.* | |
| Dec. 26. | By 25 large hens . . . . . | $ 25 00 | |
| | " 15 small hens or pullets . . | 15 00 | |
| | " 155 dozen eggs, at 36c . . . | 55 80 | |
| | " Dressed poultry sold . . . | 111.50 | |
| | | | $207.30 |
| | Profit . . . . . | | $101.40 |

*Franklin, Mass., Dec.* 20, 1869. S. S. COOK.

### EGGS OUT OF PLACE—PACKING POULTRY.

Keeping about thirty hens this winter, I always read with interest every article in your valuable journal relating to their treatment, &c. I now wish to ask if you can inform me why I find eggs on the ground when I have nests—both on the ground and raised up three or four feet, with a walk to enable the hens to reach them easily. One side of my hen house, which is quite large, has a floor of loam, and in this part the hens generally roost. The other side, which was once used for keeping pigs, is covered about a foot deep with straw and hay, which was swept from the lofts above. In this latter part the hens stay nearly all the time in cold weather, and eggs are often picked up on the straw, with no appearance of a nest having been made.

I also wish to dissent from the opinion of "S. O. J." concerning the packing of poultry for the market. Having been in the transportation business for many years, I have always observed that poultry meat or eggs, packed in barrels or casks, arrive at market in much better order than that packed in boxes, as advised by her. Any careful observer will always notice that the employees of railroads or express companies generally roll barrels on the "chime," and in so doing, keep the weight evenly distributed through the whole package, and with but very little shock to the contents, while boxes are "cut" from corner to corner, or wheeled on trucks and tipped off in a manner that throws the whole weight into different places, much to the detriment of the looks of the contents when opened. Again, barrels very seldom get broken open if they are strong when started; while boxes, unless very securely strapped, often split or lose off pieces, thus exposing the contents to the dirt and dust of railroad travel, to say nothing of the temptation to pilfer on the part of those who have to handle them. RAILROAD.

*Boston, Dec.* 25, 1869.

REMARKS.—It is not uncommon for hens to drop eggs when not on their nests, perhaps sometimes nearly unconsciously. It is one of those irregularities, or exceptions to general rules, for which it is not easy to assign a satisfactory cause.

### AMOUNT OF CLOVER SEED FOR PLOUGHING IN.

I have not seen the answer to the questions, how much clover seed should be sowed to the acre for ploughing in the crop green, and what is the best time or season to sow it? C. R. P.

*Wardsboro', Vt., Dec.*, 1869.

REMARKS.—We hope some practical farmer will answer these questions fully. We believe that the frosts of spring destroy a large number of plants sown, as often directed, upon the late snows. Mr. Allen says, in the *New American Farm Book*, that clover may be sown in August or September, but much better and surer early in the spring, with most of the grains or the cultivated grasses. The quantity of seed required per acre depends on the kind of soil. On well prepared loams, ten or twelve pounds of good seed will give a full covering to the land, while on clay from twelve to sixteen pounds are necessary to an acre. When sown with the grasses, four to six pounds on the first and eight to twelve pounds on the last will suffice. When intended for turning under, the clover is often mowed and hayed the first year and ploughed in the second year when in full blossom.

### CATARRH IN SHEEP.

I have some sheep that are troubled with a disease of the head. They run at the nose, which sometimes is so stopped up as nearly to prevent their breathing. I lost two last spring before I turned them out to grass. It seems to be contagious. Do yon know the disease and a remedy for it? H. L. SOWLES.

*Alburgh, Vt., Dec.* 24, 1869.

REMARKS.—We have placed the word catarrh at the head of your inquiries, thinking from your description that that is the disease with which your sheep are troubled. Generally the sheep recover, as people do with colds, without much doctoring; but sometimes this disease assumes a malignant type and proves very fatal. Nutritious and varied food, warm, well-ventilated shelter, and good care, are the only remedies we can prescribe. Will ex-

perienced flock-masters who see Mr. Sowles' statement give their opinion of the disease and of its proper treatment?

### POULTRY WANTED.

One correspondent in Hanover and another in Monroe, N. H., wish to purchase Embden or Bremen geese, of which we gave an illustration some weeks since. Another correspondent in Shelburne Falls, Mass., inquires for the East India or Shakebag fowls. Breeders who have fowls for sale will do well to advertise their stock.

### BLOODY MILK.

Perhaps Mr. Barton will be encouraged to try saltpetre, as you recommend, by my success. Last summer I had a cow troubled in this way, which was cured by giving her one tablespoonful of saltpetre with one quart of meal twice a day for one week. JOHN OWENS.

*Wilmington, Mass., Dec.* 22, 1369.

### COST OF KEEPING HENS.

Can you tell me how much corn a hen of the Game or Dorking breeds will eat per day, and the cost of keep for a year, if they are allowed to run at large, on a large farm? L. JONES, Jr.

*Lawrence, Mass., Dec.* 12, 1869.

REMARKS.—We have generally considered a bushel of corn, or its equivalent, as the approximate rule for the food of a hen a year, and consequently its market value the measure of the cost of keeping one. If they have the run of a large farm they may save you the trouble of weighing or measuring or even harvesting much of their food.

### EFFECT OF ASHES ON CATTLE.

If your correspondent "Zen" (in No. 52, Vol. 48) were to trace back the history of the cow he speaks of, I think he would ascertain that at some time wood ashes had been put on her back to kill vermin, and allowed to get wet. I have seen quite a number of cattle with places on different parts of their backs similar to the one he speaks of, and usually could trace them to this cause. On inquiring the cause in the case of a very fine young heifer, I saw in Waldo county, about two years ago, the owner gave the same answer that others have, "ashes applied to kill vermin, when a calf and allowed to get wet." For this reason I don't consider it safe to put ashes on any cattle, as they may get wet when we are not expecting it. I know of no remedy that will cause the skin to become smooth and the hair to grow over these bare places, but if any one does, I should like to hear from him. H. C. BURLEIGH.

*Fairfield, Me., Dec.* 28, 1869.

## AGRICULTURAL ITEMS.

—The farmers of Caledonia, County, Vt., have formed a club and will hold weekly meeting during the winter for discussion.

—Officers of the Hampshire Co., Mass., Agricultural Society have been elected as follows:—President, Levi P. Warner, of Sunderland; Secretary and Treasurer, R. W. Stratton, of Amherst.

—S. P. Miller, of Fayetteville, Vt., has a grade Durham cow, from which he has made in seven months, after selling 142 quarts of milk (large measure,) and after using what milk and cream was wanted in his own family of five persons, 311 pounds of butter.

—The *Germantown Telegraph* says that the common blue pill of the apothecaries cures the chicken cholera in Pennsylvania. Give each chicken when seized with the disease a two-grain blue pill, and if not out of danger by the following morning, another—two pills almost universally effecting a cure!

—To remove foreign substances from the eye, such as specks of dirt, eye-winkers, in fact any thing, from a mote to a beam, you have only to lift the lid, and introduce a flax-seed beneath it. The seed will make the circuit of the eye, and fetch out the offending substance.

—A New York sea captain having discovered, a short time ago, several small islands in the Carribbean sea upon which deposits of guano were found, the Secretary of State has caused certificates of title and government protection to be issued to his attorney. The islands are believed to be very valuable by reason of the extensive guano deposits.